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MY OWN PHYSICIAN;

WITH THE

WHOLE THEORY AND PRACTICE

OF

MATERIA MEDICA AND MIDWIFERY,

EMBRACED IN

A SERIES OF SHORT DESCRIPTIONS OF DISEASES,

WITH

THEIR MODE OF TREATMENT;

WELL ADAPTED

TO THE USE OF FAMILIES AND INDIVIDUALS.

ALSO,

GENERAL VIEWS ON THE PRESERVATION OF HEALTH

AND

MANNER OF PREVENTING DISEASES

INCIDENT TO OUR CLIMATE.

BY A DISTINGUISHED PHYSICIAN

AND SUCCESSFUL PRACTITIONER.

BOSTON:

PUBLISHED BY HOTCHKISS AND COMPANY,

13 Court Street.

Entered according to Act of Congress, in the year 1848, by CYRUS WRIGHT, in the Clerk's Office of the District Court of Massachusetts.

1848.

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PREFACE.

In introducing to the public this small work on the treatment of the most common diseases incident to our climate, the aim has been to make it simple and intelligible to every one, and to come to the *point* without verboseness or circumlocution. Knowing that but few men have acquired a greater reputation as a Physician, or have had a more extensive practice for *nineteen* years in the most flourishing part of New England, and for the last *eleven* years in the city of New York, than the author of these brief treatises, we believe that they will be favorably received, and will aid many in regaining their health, in support of which his labor has been so assiduous and successful. In the treatment of female complaints and obstetrics, no other man, with an equal amount of practice, can furnish a history parallel in point of success.

Its object, then, is, to declare to the world remedies safe, certain, and successful, which have never been known to fail, when properly applied; remedies which have removed, with powerful and salutary effect, the most fatal diseases of our country. "Whatever promises to restore or establish the health of our fellow-men, excites a glow of general feeling of gratitude and thoughtfulness in every benevolent heart; for we do not live for ourselves alone; we live and rejoice in the happiness and joy of our neighbors, and we pine and die in their misery and destruction." If, therefore, this should in any manner contribute to relieve the maladies of any, by directing them to a mode of practice safe and salutary, and at once within the reach of their attainments and pecuniary resources, it will afford the highest gratification to

THE PUBLISHERS.

MY OWN PHYSICIAN.

Disease. — Sickness is usually the penalty for doing wrong, physically; for, by most of people, in all situations of life, in every country, and in every degree of civilization, there is known, by every day's experience, the important *fact*, that *this* or *that* course of procedure, either in regard to our food or clothing, will be either for the benefit or destruction of our healths and the stability of our constitutions. Yet there is a wonderful degree of neglect — a kind of *care-nothingness* — about those precautions which should be observed to continue a healthy action of our whole system. Nature has so ordered it, that small exposures, and quite a degree of intemperance, can be endured and overcome, but not without lasting detriment to the constitution.

There are many habits, which every one who is addicted to them knows to be working out disease in the system as *truly and constantly* as one minute succeeds another; yet, with a perfect nonchalance, they are persisted in. For instance, the habitual use of tobacco, in its various forms, is injurious both to the mental and physical activity. It deadens the acuteness of the brain and disorders the nervous system; yet it is persisted in. So in the intemperate use of spirituous drinks, and the undue gratification of an epicurean appetite. All that is wanted to throw off these and other habits is a determination, fixed, invincible, and unyielding. Health is one of the greatest blessings, for without it no enjoyment can be realized in the rational amusements and common pastimes of life. How unwise, then, to plunge into the vortex of self-gratification while its result is inevitable ruin to health!

While there are *assumed* habits that are injurious, there are also those *neglected*, which are necessary to keep the system in a healthy tone. First, the washing and cleansing of the whole body are absolutely necessary, which necessity is found in the structure and purposes of the skin, which, by the constant removal and reproduction of the cuticle, needs frequent ablutions to keep the oil-glands and perspiratory system in the full exercise of their proper functions. To go into a discussion of the injurious effects of uncleanness upon the system is quite unnecessary here, as well as of the useful purposes of bathing, both in preserving health and removing disease. But were I to express an opinion, founded upon many years' experience, I should say that there is no surer way to bring on diseases, as various as ever Pandora's box contained, than to neglect bathing, and suffer a filthiness of the body.

Another great source of disease lies in the mouth filled with filthy, decaying teeth. Great care is usually taken to have our rooms well ventilated, and our dwellings removed from all places of noxious exhalations, while the very air we breathe is poisoned and putrefied between our lips and lungs. I am happy to say, that, for the last twenty years, much more attention has been given to this subject. I have been, and am still, of the opinion, that one of the greatest sources of consumptions can be found *here*. And pure air is not only essential in preventing, but it is of the utmost importance in removing disease. "This comes from the fact, that when the system is stimulated by pure blood, its power is greater to remove disease than when the blood is defective in quality, by not having the carbon removed from it by a proper supply of pure air." Hence the idea that the sick-room should always be kept close, and any thing like a free circulation of pure air obstructed, is pernicious. So with our sleeping-rooms. Let them be well ventilated; it is not enough that they be well aired during the day, then closed, for the occupant to breathe over and over the stifled air of a small room during the night; but permit our weary bodies to be refreshed with wholesome atmosphere during the night as well as by day.

As it is much easier and less expensive to mend a new rent in a garment, rather than permit it to become larger and larger, so it is to preserve health, rather than suffer it to be injured. Medicine is frequently necessary

to assist the natural operations of nature in removing disease; but it is only an *assistant*, and always an *evil;* yet it is designed, when administered, to produce an effect upon the system less dangerous than the disease which is desired to be remedied by it. Although medicine is useful in many instances, yet, in a great proportion of the cases of disease, including fevers and inflammations of all kinds, the system can be renovated and relieved with less danger by abstaining from its use.

"Food should be taken, not only at stated periods, but in a proper manner. All solid aliment should be reduced to a state of comparative fineness before it is swallowed; the gastric fluid of the stomach will then blend with it more readily, and act more vigorously in reducing it to chyme. The practice of swallowing solid food, slightly masticated, or bolting it down, tends to derange the digestive process, and impair the nutrition of the system." Mastication should be moderate; for if the aliment is not supplied with saliva, digestion is retarded. Hence rapid or fast eating has a tendency to induce disease.

On the subject of food, when to take it, how much to eat, and how and when to exercise, every one should form correct notions, and adhere to them, inasmuch as the health, activity, and growth of the whole animal economy depend upon it.

In regard to sleep, nature is ever a sure dictator. Too much sleep is enervating to the system, as well as too little. Persons of different temperaments require different amounts of rest; but in all cases it should be *regular*. The old adage, *sana mens in sano corpore*, can never be verified without *constant wholesome habits*.

Fevers in general. — A fever is an inflammation of the blood, occasioned by some obstructions in the blood-vessels generally, from a lentor or size which prevents its circulation; to remedy which we must examine into the circumstances of the patient, whether he be plethoric, and his blood be very high and full; whether he be corpulent or not — for if he is, blood must be let; whether it be pleurisy or burning fever, the blood must be lowered; and after that, if the sweat breaks out of itself, nature is at liberty to carry off the fever; then, to assist, give only cooling and softening medicines; let his drink be mallows, mullein, arsesmart, then a gentle purge of rhubarb. But if the patient be very much loaded at the stomach, give a vomit of tartar emetic in the beginning, and if a great obstruction in the bowels, give senna; or if our own medicines are preferred, let it be jalap in fine powders, — a tea-spoonful will work up and down smartly, relieving both the stomach and bowels; — or two spoonfuls of the juice of blue flower-de-luce may be given, which will work chiefly down: it is taken in molasses, and is good as a purge for robust constitutions. But should the patient be phlegmatic, omit bleeding, and give attenuating medicines, to divide the lentor of the blood, instead of a vomit, as diaphoretic antimony and native cinnabar. To six grains diaphoretic antimony put one grain of tartar emetic, which will dissolve the lentor of the blood; then sweetening medicines are good to open the pores and divide the juices; last of all, give gentle purges. But the following is better than any shop medicines for attenuating the blood, viz.: take a little bloodroot in powder and mix it with white snakeroot; give a dose twice a day. It will prevent the fever from bringing on a putrefaction or disordering the nerves; for the fever is not putrid at first, but the fever's heat and hot medicines cause putrefaction.

A secondary fever depends on some other cause, such as a sore, bruise, burn, or pain; and to cure such fevers, the cause must be taken away; then the fever will cease. A diary fever is only a fever of one day, or a fit, and requires nothing more than a little rest. This is often seen in children, who are taken violently, and are well again in twenty-four hours.

A *continual* or putrid fever has of late years been very common in New England, and the shortest in autumn. The symptoms are heaviness and dulness of the spirits; in the beginning, weariness of the limbs, cold shivering, thirst, and restlessness, pain in the head and loins, and sometimes vomiting; as the disease increases, severe watching, often with delirium or frenzy, a bad taste in the mouth, a rough tongue, a strong and quick pulse, urine high-colored, and as the disease increases, often a diarrhœa. This fever is continual, and the fit comes on every fourth day. Nature endeavors to effect a cure every seventh day, but the bile, being of a viscid lentor, which cannot be replaced in the liver, putrefies in the gall bladder. This putrefies the whole quantity of bile, and affects the mass of blood, bringing on death. Physicians name the fever by those symptoms which appear: if nervous, they call it *nervous* fever; if a dysentery happens, they call it a *bloody flux;* if the patient lingers along, they call it a *slow* fever; if it happens to fall on the lungs, they

call it the *consumption*. So in the cure they make awkward work. They draw blisters, give hot medicines, which heat the blood and help on putrefaction; and when they find that their patients do not get well by these, then, among their hot doses, they throw in acids, as spirit of vitriol, spirit of sulphur, which thicken and coagulate the blood, and entirely prevent nature from throwing off the fever. But, for a rational cure, at first give attenuants to divide and thin the blood, as diaphoretic antimony, native cinnabar, and mix one grain of tartar emetic with diaphoretic antimony, and give cream of tartar six grains at intervals, and then give a cathartic of the following mixture, viz., calomel six grains, flour of sulphur two drachms, rhubarb one scruple; give it for one dose, it being mixed; if the patient be weak, somewhat less of calomel. This is to be given twice or more in the course of the fever, but never give working physic on the critical days, which happen every fourth or seventh day from the first seizure. If you would give our own medicines, use bloodroot twice a day, except the critical days, and let the patient's drink be cooling and relaxing, as flaxseed, mallows, mullein, and elder. Slow fevers — those of a low kind — are to be treated with warm medicines. Take ground ivy, pennyroyal, sage, sarsaparilla, and hyssop made into a tea; also bloodroot and snakeroot made into a powder; take as much as will lie on a ten cent piece. Malignant fevers are characterized by a remarkable loss of strength and a weak pulse; though the external parts are not so hot as in other fevers, the internal parts are rather hotter; the skin is like that of a well person; the vision is often changed. The symptoms of this fever differ in different persons and according to circumstances; the blood becomes like yeast, and will not coagulate if drawn. This fever sometimes causes a gangrene or mortification, so that the very name of a malignant fever is a terror to mankind. This fever is not to be treated by bleeding; it will always do mischief. A vomit is useful in the beginning, and then sweating medicines, as camphor, diaphoretic antimony, and spirit of nitre, &c.; of our plants, white snakeroot, prickly ash bark, sage, pennyroyal, and saffron.

The cure for the spotted fever should be undertaken with purging medicines and clysters. In fine, all fevers are in the cure to be begun with evacuations, as the circumstances require — either vomit, purge, or sweat; but, in all cases of fever, sour acids are to be avoided, for fear of coagulating the blood.

Measles. — They come on with shivering and thirst, severe cough, pain in the head and back, and sometimes with vomiting; then small red pimples come out, which first appear on the palate and roof of the mouth. As to the cure, it needs no art only to keep the patient in an even temperature, and give saffron or pennyroyal; also, gin or cider is good, to drive out the eruptions; and after they turn, to give some purge to carry off the putrefaction.

Small-Pox. — In this distemper, the patient, if plethoric, is to be bled, and a vomit given, then snakeroot, saffron, sage, and pennyroyal, while great care should be taken not to keep the patient too hot. As inoculations are chiefly used, I will describe how it is done. First, the patient is to be dieted, and kept very low for a fortnight, and is not to drink any spirituous liquor; must be bled once, and take one dose of weak calomel and rhubarb mixed; then take some of the morbific matter from a pustule of one who has the distinct disease, and wet some lint with it, which bind on to a small puncture made on the arm, for twenty-four hours; then take it off, and, if it is festered, or begins to run, put on a cabbage-leaf, and change the dressing as in issues, until the pustules appear, turn, and suppurate. During this, keep the patient as if well, or in a temperate posture. Give, once a day, calomel, five grains, mixed with eight grains of diaphoretic antimony; or, if you have not time to diet the patient, give calomel and diaphoretic antimony thrice a day, and rhubarb the fourth day, to carry off the morbific matter; or inoculation may be performed and bloodroot given, and every third day a portion of rhubarb or some other cathartic, &c.

Quinsy. — This distemper properly consists of two sorts. The first is what is commonly called the *rattles*. It comes on with difficulty of breathing, dry cough, paleness of the face; the nerves and muscles relax; and it often ends in death: sometimes it is complicated with a dry tumor, and is then called the *throat distemper*, or *canker*. This is an acute disease, and mostly affects children. It has been very mortal throughout this country. The cure consists of five grains of dulce mercury, bloodroot three grains, mixed in honey and, to cause a spitting, take bloodroot an-

vinegar of squills, twice or thrice a day, then give tincture and cortex Peru. after the spitting has abated.

The second kind is an inflammation of the throat, which gathers in pus, and affects a greater or less part, as sometimes it inflames the muscles of the tongue, at others the tonsils, uvula, and pharynx, with their muscles. The more the inflammation is spread, the greater is the danger of not obtaining a cure. There are divers expedients to be used, as much bleeding, sharp vomits, strong purges, hot fumes, a blister on the back of the neck, flaxseed tea, or oil of linseed mixed with neat's foot oil, honey, and urine, used internally. All these are the surest remedies.

Pleurisy.—This is an inflammation of one or both lobes of the lungs, and is most common to sanguine complexions. Those that are such, should be bled in the beginning of the disease. It begins with a cold fit, then heat and thirst, with pain in the side, which will sometimes reach to the shoulder-blade; then comes on a continual cough, and sometimes blood is raised. For a cure, a tea made of pennyroyal, senega, and tansy, is useful. If the patient is in great pain, flaxseed boiled to a jelly, one spoonful every hour, with a blister on the side next the pain, is good; at the same time, the body must be kept open with gentle physic; no anodyne is to be given to ease the pain, as it prevents expectoration.

Empyema.—The symptoms of this are a dry cough, weight on the diaphragm, inability to lie on one side, slow fever, redness of the cheeks, hollowness of the eyes, and heat of the fingers. It is difficult to cure; expectoration is the only vent; therefore expectorants must be used, such as oil of lime, or linseed oil, mallows, and woundwort, boiled. If the pain in the side seems to be fixed, cause an issue to be made, and, if possible, vent it through the skin.

Frenzy.—This is a continual delirium, or dizziness of the brain, caused by a translation of the feverish matter to the brain. The cure is to be effected by strong purges, and by clysters, and blisters applied to the back of the neck, strong cataplasms to the feet; camphor, musk, and diaphoretic antimony are to be used; cream of tartar and nitre sometimes also; the juice of lemons mixed with water; and a cake, made like rose-cake, of poppy flowers, may be applied to the head and temples. If, in the beginning, the patient complains of pain in the balls of the eyes, it is a fatal sign. It is a very mortal distemper, and often carries off the patient the third, fourth, or seventh day. The signs of death are, difficult breathing, sweats, grinding of the teeth, tremor of the limbs and tongue, &c.

Inflammation of the Intestines.—This occurs in the colic, frequently causing death. The bowels are costive and feverish, accompanied with vomiting and fainting; but strong purges *must not* be used. The following is a sure remedy, viz.: elder roots, woundwort root, mullein, mallows, arsesmart, all boiled in a gallon of water to one quart; in this dissolve one ounce of saltpetre, and one ounce of salts. Let this be taken every half hour, if necessary, until it cools and relaxes the parts.

Distempers in the Head.—In general, it is observed that diseases in the head seem to have but one original cause, and differ only in degree. The causes are, first, a lentor or size of the humors; the second is, sharpness or tension of them, whereby the fibres are hurt and depraved; therefore the distempers of the head arise from abundance of sizy and viscous humors as their principal cause. There are various distempers of this kind, even to the severest apoplexy. To these we may refer the fits of hysteric persons, as spasms, contractions and convulsions of the muscles. These are owing to a stimulant cause occasioned by an acrimony of the fluids, which, being acid, thicken and obstruct the circulation, and cause those violent symptoms of the nervous kind; and to remedy which, we are to attenuate the siziness of the fluids, and to open the obstructions of the vessels; to abate the acrimony of the humors; to dissolve the coagulation; to restore to the solids their healthy tone. But bracing medicines must not be used until the lentor of the blood is destroyed, and the obstructions of the vessels are removed. To dissolve the lentor, take bloodroot, snakeroot, and mustard-seed, each two spoonfuls, in fine powder, with half an ounce of saltpetre. Put these into a pint of clear water, and add half a pint of spirit, and of the mixture take a spoonful twice a day; then, after three days, give working physic, as jalap, the juice of blue flower-de-luce, which is much the best for nervous disorders. When the disease is removed by dissolving its attenuants, give Peruvian bark, to brace the solids, in powder, with brandy or wine; or a tea of sarsaparilla, crane's-bill root, and rue, is better.

Sleepy Distempers. — These disorders should be cured with strong vomits and purges. Put a plaster of turpentine and pulverized mustard-seed on the neck; blow the powder of black hellebore up the nose, to cause sneezing; apply blisters to the wrists and ankles; apply strong poultices to the feet, and volatiles to the nose.

St. Vitus's Dance. — This disorder is of the convulsive kind, and most affects young persons. It affects the limbs, the arms and legs, which they cannot hold still. As to the cure, some order repeated bleedings and purgings, but many have been cured without that. Only give a dose of the juice of wild flower-de-luce, then take a dose of camphor and dissolve it in spirits, then take a small quantity of the camphor thus dissolved, and put bloodroot into it, and give a tea-spoonful twice a day, (after purging,) in the morning and night; then a tea of sage, rue, or pennyroyal. This generally cures in three or four days; but should it return again, repeat the same.

Hypochondria, or Hysteric Passion. — These disorders are most common to women, and imitate almost all diseases. They complain of almost every thing, although all have not the same complaints. Sometimes they have ague or hot sweats, and faintness comes on them; but the symptoms are varied according to the temper and constitution of the patient, and his mode of living. All that can give rest or relief is, to administer things to strengthen the blood. Filings of iron steeped in wine, sundue, goldthread, rue, burdock-seeds, and mustard-seed, pulverized and put into brandy, is a superior medicine in cold, phlegmatic temperaments. These hysteric fits differ according to the nature of the patient; therefore the medicine that will help one will hurt another. Sanguine persons cannot bear spirit or cordial, but must have such as tend to quench, in some degree, the animal spirits, as asafœtida, castor, and all fœtid medicines, used in pills, with aloes and myrrh. Let these be given as an attenuative every night. If the person be pale, of a cold, phlegmatic constitution, give ens. veneris, and a preparation of steel, dissolved; also ens. veneris, given in powder, two or three grains at a time, every morning, and a tea of rue, sage, pennyroyal, and sweet flagroot, in brandy, is good. Hysteric women generally obtain their disease by taking cold in their feet, which stops their menses or courses, and, in a few months, brings on spasms, occasioned by a suffocation of the womb. These fits are exceedingly violent, and will not be cured until the woman is regular again; for which purpose give two spoonfuls of the juice of wild flower-de-luce. This I have known given between the fits, and it may be repeated. It will not work much until the fits abate, as it does on well persons, but will check and cure the fits, producing regularity in the woman. This I have proved by my own experience many times. The juice of wild flower-de-luce, mixed with brandy, and bloodroot, in powder, a spoonful every morning, taken by a phlegmatic girl, will bring her into order, and cure the fits coming from that cause. But should the fits happen from some other cause, as too much relaxation, which is often the case, and at the same time the woman have her menses once a fortnight or oftener, then they are to be cured by Peruvian bark, sloe-root bark, or fungus.

Rabes, or Hydrophobia. — This is a sort of a disorder occasioned by the bite of a mad dog, or the saliva of some animal which is in rage with this disease. This poison is very strong, so that the cure is difficult after the madness has come on; but as soon as the bite is made, it may be drawn out by many things, as onions beat up with salt and applied to the wound, jalap pounded, put on, and often shifted, till the saliva be drawn out. Give internally snakeroot and camphor; some burn the place with hot iron, others apply a cupping-glass. All that have a great dread of water die of this disorder.

Incubus, or Nightmare. — This disease is generally well understood in its effects and symptoms. It is not mortal, though by some supposed to be so; however, it often degenerates in apoplexy. The best cure is, to live temperately and eat light suppers, using anti-flatulents, as anise-seed, burdock-seed, and mustard-seed, steeped in spirit and taken at night.

Consumption. — This disease, so common in this climate, is believed to be remedied by observing the following directions and remarks. It is generally occasioned by humors falling down into the lungs, by which, in process of time, an ulcer is formed; the symptoms are a cough, &c.; when that occurs, it is said to be incurable. But we should not be discouraged. Therefore, in the beginning, remove

the defluxion from the lungs before the ulcer is formed. Phlebotomy must be resorted to, a gentle cathartic, and then let the patient live on a milk diet, and take thickening medicines, such as comfrey, mallows, and ground ivy. Riding horseback is a good restorative in all consumptions of the lungs. A hectic fever attends most consumptive persons. Strong purges are to be avoided. Almost all parts of the body are liable to be attacked by consumption, as the liver, kidneys, and mesentery, &c. Those who are disordered in the mesentery, have pain about the belly, and knobs are to be felt in the abdomen and about the navel. The signs of a hectic fever are night sweats, red spots on the cheek, the urine has a kind of an oil on it like a spider's web. If any person even suspects himself tending to consumption, he may smoke tobacco and colt's foot two or three times a day; spirits of sulphur mixed with conserve of red roses is an excellent article for all ulcers on the lungs. This disease is most likely to prove mortal when it happens between the ages of eighteen and twenty-five years, and is often hereditary. It is communicated to one another by lodging together, or by wearing the same clothes, though not often. If a spitting of blood comes on, runnet may be given.

There are other sorts of consumption, which are occasioned by other distempers, such as a hæmorrhage, gonorrhœa, the fluor albus, hypochondria, obstructed menses, pleurisy, &c. In all these, regard is to be had to the primary cause, and all medicines given accordingly. Restoratives are to be given to prevent the waste of the solids and for digestion. The patient may ride horseback, may frequently eat shell fish, such as oysters, lobsters, and clams, during the cure. Every one is best able to judge of his own case in consumption, and can administer medicine according to the symptoms.

Costiveness. — This is the cause of many complaints. For a cure, oily substances are the best, but not working physic, as it leaves one worse than it found him. Oil of flaxseed, mallows, buckthorn, and all mucilaginous substances, are to be used; for diet, fresh meat broth, and all cooling berries, as whortleberries, blackberries, &c. If the patient has an inward fever, he may also use turnips, pumpkins, beans, and peas; but all should be eaten fresh. Let those that are costive rise early and walk or ride, for lying in bed will make one costive, if ever so far removed from it by the natural state of the system. Clysters are good in severe cases, but cathartics are to be avoided if possible.

Dysentery. — This is a violent distemper, and differs both in its nature and its cure, as it proceeds from different causes. When it prevails in armies, it usually proceeds from scurvy. Only the smell of hospitals will set it in motion, while a fever setting in with the scurvy becomes the executioner of thousands. All that can be done is to give antiscorbutic medicines, and keep the patient as clean as possible, giving now and then rhubarb or ipecac. Yet a dysentery is often contagious and spreads in clean towns; and it is known by experience that what will cure it at one time of its going about will not at another. At one time, no medicine seems to help, except burnet and brandy; at another, nothing is more fatal: sometimes a vomit is good; then, again, it will kill by drawing the venom into the stomach. Rhubarb is the only safe medicine, and I do not know of any ordinary cases that it has not cured; it is a good way to take it in cider fermented with salæratus. When it happens in cases of fever, it can be treated as follows, viz.: If it is in the blood, *that* must be corrected by attenuants; if in the stomach, then a vomit of ipecac; if in the bowels, give rhubarb several times; and if it proceeds from some other distemper, then the cause of *that* must be removed. Logwood boiled in milk is a very good drink; also comfrey root, mallows, &c., made into tea; also, take often canker root, which is quite certain to cure, and was first suggested by the Indians; flaxseed pulverized in milk. Nettles, yarrow, and meadow plantain boiled in whey, if the blood flows plentifully, are known to be a most useful medicine. If a dysentery happens without fever or inflammation, use astringents, as hemlock bark, or powder of green walnut shells dried. Of this disease physicians know no more than any one else; and often they kill two where they help one, as in putrid fevers.

Bilious Colic. — This is a most tormenting pain in the intestines. One of the best cures in the most severe cases is to drink a gill or more of hot molasses. In ordinary cases, the cathartic should not be pills or dried powder, but castor oil. When the pain abates, give flower-de-luce, or the juice of the root, and on the outside of the belly lay a bag of wormwood or tansy, well heated, or some-

times a warm iron to the navel. These treatments in season will prevent any causes of alarm in regard to the patient.

Worms. — These are troublesome to children, and frequently to adults. Abundance of things are used for worms; if a number of them are compounded, they will seldom fail. Take common wormwood, black alder bark, tansy seed, horehound, black cherry-tree bark, and ground ivy, and boil them all together in water, from two quarts to half a pint, then add half pint rum and half pint molasses; give it for a few mornings only, and it will effectually cure.

Rheumatism. — This is very common in this cold country; that which comes in the winter is called the *cold* rheumatism, and tortures the patient by moving from one limb to another: This kind is cured by giving the juice of wild flower-de-luce for a cathartic several times, then take prickly ash bark, sweet flagroot, and bloodroot, and steep them either in brandy or rum. Take this three times a day, and it is a most certain remedy. There is another kind, called *hot* rheumatism, that inflames the parts, swells the limbs, and continues both summer and winter. This is cured by often bleeding and purging, by a milk diet and drinking whey; if it be brought on by the use of liquors, they must be wholly refrained from. Diuretics are to be given, as Castile soap, saltpetre, &c. If knobs are likely to come on the joints, the cold bath is the best preventive; but the patient must drink cold water when he goes into and comes out of the bath; then go into a hot bed, wear woollen shirts, especially if it be the cold rheumatism, &c.

Lues Venerea, or Pox. — This disease was not known in Europe until 1493. The Spaniards carried it from America, and gave it to the French, who called it the *Spanish gout;* then they communicated it to the English, who called it the *French pox*. It operates differently on different people. Soon after it is taken, a running heat arises about the private parts, and in a few days a gonorrhœa or gleet is formed, the matter is carried to the groins, and buboes appear. Sometimes callous ulcers come in the scrotum, and in some people the testicles swell, and if blood be taken away, bluish spots will appear on the top. At length pimples and spots break out on the face, some yellowish and others of various colors, which heal of themselves, then break out again. These pustules are round, and have a dry crust on them. An erosion of the penis often, and a strangury with violent pains, which are worse at night; then come on ulcers of the palate and throat, with hoarseness, together with scabs, deafness, and blindness. This disease is often concealed under the name of *canker*, it being first taken in America from the Indians. It originally came from the bite of the rattlesnake, as has been proved by the following, viz.: the poison of this snake being infused by a bite into the leg or foot of a man, and allowed to progress for some time, will greatly affect the animal spirits; it will raise and excite venery; then, if this man copulate with a woman, he will seem to be somewhat eased for a short while, but will communicate it to her, which will operate slowly, and she also may give it to others; so that we find it to be an animal poison, and is best cured by salivation. When it is allowed to progress for a long time, it cannot be cured any other way; in the beginning, it is easily cured. If any person thinks he is possessed of this disorder, let him take four spoonfuls of white-pine turpentine; bloodroot, in fine powder, one spoonful; saltpetre, half an ounce: sow bugs, or millepedes, two hundred, mixed and beat together, — then every night, on going to bed, take as much as the bigness of a walnut, and it will totally prevent the progress of the disease, and perform a radical cure. For a drink to sweeten the blood after a salivation, make a tea of sarsaparilla, sassafras root, and feverbush; drink this several times a day.

If the case is desperate, a salivation must take place. At first anoint the skin, legs, and arms, three nights, with mercurial ointment, then give a vomit of turbith mineral in conserve of roses; a spitting will follow; then be careful that the patient use no cold drink, and must live on thin water gruel. When you wish to lower the salivation, use sulphur once or twice a day, and give rhubarb for physic; then sweeten the blood as before directed.

Some people cannot easily bear a salivation, and in others it is not easily raised. In this case, it will not do to strain Nature beyond what she will bear, nor force the other against the nature of the constitution; therefore it may be cured by taking a longer time. Give, every day, calomel, fifteen grains, mixed with a tea-spoonful of flour of sulphur, and if it works downward too much, that is, more than two or three times,

less may be given; then give one dose of rhubarb; continue this practice for two weeks; then give calomel once a week, and the rhubarb once in two weeks, and all the time let the drink be white pine bark tea and the roots, as before mentioned. All the symptoms in this disease that imitate others, are to be treated as the disorders of those symptoms.

Distempers of the Ears. — The smoke of tobacco blown into the ear sometimes eases the pain; earth or angle worms stewed in neat's foot oil, and a few drops put into the ear, are often of essential use. If it proceeds from an ague, then an onion roasted and applied will give great relief. Sometimes it is occasioned by worms in the ear; then six drops of neat's foot oil and two of turpentine mixed; heat it and drop it into the ear, and it will kill the worms. A noise or rumbling in the ears is seldom cured, for, if helped, it usually soon returns. The spirit of sal ammoniac and spirit of castor, a few drops on cotton and worn in the ear, is the best remedy.

Deafness. — If it proceeds from wax being in the ears, they must be syringed and thoroughly cleansed; but if it arises from any internal cause, it is incurable; but if any thing will cure it, the following must be the medicine, for there is no other discovered, viz.: take ant's eggs and onions, bruise them together, and drop the juice into the ears. A simple medicine, but it has done wonders.

Saint Anthony's Fire. — Any part of the body is subject to it, but mostly face and breast. The part affected swells a little, with great pain and redness at first. Physicians differ greatly about the cure; some order cathartics and bleeding, and others condemn it: however, it is certain that physic and bleeding have been death to many, and are not safe to practise. Camphor dissolved in rum may be applied to the part; but, from the experience of many, (notwithstanding what all writers have said about it,) two ounces of saltpetre, dissolved in a pint of water, taken two or three times a day, and wash with the same, has proved a specific remedy; and no other medicine is needed, for this is safe and sure.

Burning and Scalding. — These accidents often occur. There are three degrees of a burn. The first is when the skin is burnt red and blisters arise. To take out the fire and prevent the blistering, dip the part afflicted in warm water, as warm as can be borne; or hold the part to the fire, at the same time putting on neat's foot oil, onions, salt, and soap beat up together. In the second degree, the blisters arise directly, and are exceedingly painful. In this case, oily medicines are best, as poultices of Indian meal and hog's fat, or Indian hemp root boiled in milk, applied and changed often; or take the root of ginseng or woundwort soaked in water, which will turn to a slime, and put on often. If the burn be on the face, it must be covered with thin cloth and kept wet, so that the burn may be moist without removing the covering, which will prevent the skin from scathing, as it will if it comes to the air; but if the eyelid blisters, it must be punctured, and water allowed to run out, as must all other blisters. Basilicon is the best ointment of the shops for burn, but we can make ointments far superior of our own roots and oils, as mallows, comfrey, elder bark, with neat's foot oil, honey, and bees-wax. The third degree is when the skin turns black immediately. This is very dangerous, as it may cause a gangrene, while the part is numb, and must be cut to the quick the first or second day. In all burns the particles of heat penetrate into the blood, and cause a fever in a short time; therefore camphor should be given inwardly, as an attenuant, and the drink cooling. A plaster of diacylon must be placed above the burn, to prevent its spreading; but to stop putrefaction, use brandy with a thin cloth. Linseed oil is very good. If a limb be burned, it must be kept straight during the cure, or the tendons will relax and the limb remain crooked.

Chilblains. — These affect the hands and feet in winter, and swell the parts, occasioning them to itch violently. They are cured by rattlesnake's oil, or a roasted turnip with oil of turpentine. All things are good that prevent ulceration. Wash in urine and spirits, then neat's foot oil simmered with elder bark is a sure cure.

Cough. — This is not uncommon in these cold climates, but depends on different causes and proceeds from different parts. When one has a cough, let him take a long breath, and if it makes him cough, then it comes from the lungs, and they are affected; if not, the cough is only in the stomach, occasioned by humors being lodged there. If the cough comes from the stomach, is nearly

perpetual and dry, nothing raised but with the utmost difficulty, this cough can be cured by emetics, elixir proprietatis, balsam Peru; balsam hackmatack, mixed with honey is a superior medicine. For a dry cough, use flaxseed tea, oil of linseed mixed with honey, liquorice and lungwort, ground ivy, and horehound made into a sirup; these are all good, either alone or together, for an obstinate cough. I have known coughs cured several times by drawing blisters on the ankles and by a sirup of garlic.

Diseases of the Stomach. — Crudities and sourness of the stomach, causing heartburn and sour belchings, are cured by volatiles, avoiding the use of all salt and sour things. The heartburn of a woman in the first months of pregnancy is not to be cured or attempted. When the crudity of the stomach occasions its contents to become unsavory and unfit for nourishment, with a rather bitter taste in the morning, it is occasioned by indigestion, but more often by unwholesome diet, which blunts the appetite and prevents digestion. As a cure, the patient must live very low for some time, as in a salivation; a vomit of ipecac may be given at first, then use the antiphlogistic regimen, that is, water gruel, with very little salt and no spirituous liquors. When it seems to be gone, let the patient come to *this*, — to eat when he is hungry and drink when he is dry; then will he be perfectly well. The want of digestion, or indigestion, may be helped by bitters infused in wine or cider; such bitters as the following are best, viz.: goldthread, rue, burdock-seed, and wormwood. Bitters are better in water than in rum, for all hot spirits hurt digestion, unless the constitution is phlegmatic.

Diabetes. — This distemper comes on privately at first, with a little dryness in the mouth; after some months, a thirst ensues, and the patient makes more urine than usual; at length a weakness in the back is observed, and the thirst increases. The strength and body seem to gradually waste away, and often a kind of hectic fever attends, but no night sweats appear; soon the urine runs away in great quantities, as clear as pure water, and on it there will be the appearance of oily matter. If the urine stops, the patient swells, and when it comes to this, death is not far distant. Persons so afflicted are observed not to live over four years, if it proceeds ever so slow. It is a mortal disease, and often hereditary; but when it arises from other disorders, I have cured several. It was done as follows, viz.: let the patient live on milk, especially on buttermilk, and take prickly ash bark and sarsaparilla root, dry and powder them, and mix in conserve of roses, which take often; also rosin, loaf sugar and alum, each one third, mix and take them, as much as will lie on the point of a penknife, twice a day. Acorns, cinnamon, cloves, and nutmegs, powdered and mixed, are good, and always serve as a remedy in this disorder.

Surfeit. — This is an over-heat or division of the juices of the body, occasioned by eating too much, or by drinking too much, by over-heating, exercise, intemperance, unwholesome food, and drinking too much cold water. It is attended by breaking out on the skin with pimples, blotches, &c. The remedy is to be begun and carried on with a light milk diet, gentle physic, &c. The drink must be beer made of malt, spruce, and sarsaparilla, or sassafras roots.

Vertigo. — This is a disorder of the head, and every thing has the appearance of turning round. If the disorder is seated in the fore part of the head, it is easily cured; but if in the back part of the head, it is dangerous, and often degenerates in apoplexy. The person, in this case, if he rise suddenly off his seat, will fall back again; sometimes he will have warning of it by a heaviness of the head. There are three sorts, but they differ only in degree. The first is only a swimming in the head; the second, every thing turns round; the third, when the person attempts to rise suddenly, he falls again; the optic nerves are chiefly affected. If the disease be plethoric, bleed the patient, and give a vomit the next day; let him take a tea made of sage, pennyroyal, and mustard-seed, every night, and, in the morning, a dose of rhubarb; then, if the disease does not yield, after some days, draw a blister on the neck, and give the juice of the wild flower-de-luce.

Inflammation of the Eyes. — This is to be cured by physic and bleeding. Roman vitriol, dissolved in water, may be applied to them; it will cool and scatter the humors. The bark and root of bas-wood, soaked in water, which will turn to a slime, is good to wash them in; it effects a cure in most of cases; rose-water is also good. In cases of extreme inflammation or tumors of the eyes, nothing better can be done than to apply

leeches; in fact they are excellent in cases of sores.

Apoplexy.—This is the worst of all nervous disorders. When the person is seized with it, he suddenly falls, speechless and senseless, without motion or respiration; yet the pulse continues to beat; the person looks fresh colored; at length he breathes with a snorting noise, and has cold sweats. It, however, soon degenerates in a palsy, and gathers into one side. It is occasioned by the thick lentor of the nervous juice, which clogs the brain. One kind of this disease is a sanguine, the other a phlegmatic apoplexy; but neither of them are very pleasant. To distinguish them, it is to be observed, that in the phlegmatic, the patient seems to be choked with phlegm; looks pale in the face; the face is not bloated, nor the pulse very high; but, in the sanguine, the patient breathes easy, with very little noise, as if asleep, with a red, bloated face, a strong pulse. Bleeding either kills or cures. In the cure, all evacuations are necessary; yet they sometimes increase the disease, and often hasten death, if the patient be weak. Sneezing powders, vomits, strong purges, and sharp clysters are to be used, if the strength of the patient will allow.

The symptoms of an apoplexy are, a vertigo, a fulness of the vessels, and a failure of the memory, dimness of sight, frequent pains in the head, spontaneous tears, the incubus, numbness of the arms and legs, &c. An apoplexy is generally hereditary. To prevent as well as cure, give sage, rosemary, mustard-seed, and ground ivy; in the fit, a blister should be put on the back of the neck, or a cupping-glass, and a strong poultice to the feet. Those that die of an apoplexy should not be buried immediately, but kept two or three days, for, in that time, all the humors are moved, and some have revived and lived after they have been supposed to be dead. In those that die of apoplexy, the vessels of the brain are loaded with a thick lymph, and all the vessels are full of thick scum; therefore bloodroot should be taken to attenuate this scum, even in the fit, and before if possible. All nervous disorders require nearly the same mode of cure.

Iliac Passion.—This is a tormenting pain, with vomiting; nothing will pass downwards, until the very excrements are brought up. The intestines seem to be twisted, or one part enters the cavity of that part above or below, and it often appears to the patient that there is a gnawing. This disease is by itself, or accompanied by other diseases or other colics; but it often kills the patient. Bleeding is absolutely necessary in the beginning; but, in many cases, only one thing will cause relief; that is, by immersing the patient in a hot bath, then give an anodyne and gentle clysters, and not cathartics, for they are immediately vomited up. This disorder is occasioned frequently by eating a great abundance. I have had three cases of it by eating old honey, and have reason to believe that the hot bath was the only remedy. The smoke of tobacco blown up as a clyster is good to ease the pain; then the cure must be carried on with balsams.

Dropsy.—This is owing to the poorness of the blood, and is attended with shortness of breath, great heat, thirst, swelling, first of the legs, then of the abdomen, and voiding but little urine. This watery dropsy of the abdomen is called the *ascites*, and is often incurable. It is to be purged off with diuretics. Sometimes gentle cathartics do good, and often hurt. Bloodroot may be used to attenuate the blood; then give a drink made of mallows, mullein, white pine bark, and to a gallon add a pound of honey; then use it for common drink. Drawing off the water through the skin, whether by *tapping*, as it is called, or by blisters, does not forward the cure, but continues the disease; so to bleed in the dropsy is certain death, for the blood being taken away, the vacuum will be filled by water. Diuretics must, therefore, be given, and things to restore the blood to a healthy state. This is all that can be done to remedy the dropsy in the belly.

Jaundice.—The symptoms are a weariness of the body, shortness of breath, want of strength, slow pulse, yellowish urine, dryness of the skin, as if burnt, yellowishness of the skin, and the white of the eyes are yellow, and feel as if sand were in them. The distemper sometimes follows the colic; then rhubarb and bitters may be given; after that, Castile soap, with horseradish. If the jaundice be a primary disease, take a vomit; then conserve of rue, horseradish root, ground ivy, and horehound, beat up with sugar. Take this as big as a walnut, night and morning. The more yellow the appearance of the jaundice, the easier will be the cure.

Grief and trouble often produce this disease, as do the winter colds. Iron boiled in cider, and taken in the morning, is very

useful. The yellow jaundice is very common with pregnant women, but it goes off of itself after delivery; while the infant is often born with the disorder, and in a few days turns yellow and dies. The black jaundice is a hard disease to cure, and if the patient spit blood, it is said to be altogether incurable. Numerous medicines are used in this disorder; the white of eggs, mixed with soot and Castile soap, challenge the first place. A vomit is often good, and after that, bitters.

Cutaneous Disorders. — If blackness of the skin be natural, it is incurable. But when it is only burnt by the sun, it may be washed with the juice of lemons or camphorated spirit of wine. Take an ounce of the juice of jalap and a pint of water, and add a small piece of saltpetre; wash the face and hands two or three times, and it will free them of tan, and prevent its coming on again in a great measure. Little yellowish spots on the skin of the face are cured in the same way, adding beauty to the countenance before quite forbidding.

Herpes are those single red pimples which rise upon the face with white or yellow heads, and discharge a drop, then dry up, frequently leaving a mark. These are easily cured, but generally return at the same season of the year, increased in number. Make a salve of half a pound of lard, bloodroot in powder one spoonful, half an ounce of saltpetre, sulphur two ounces, tar one gill, and anoint them for a few times. When blisters break out on the side, thighs, or legs, and look like burns, they can be cured by using a wash of bloodroot boiled in water, or steeped in rum.

Wounds. — These are occasioned by some hard substance coming in contact with the soft parts of the body, which cuts and divides the muscles. At first the blood runs out in great plenty, and then gradually stops of itself, if the wound be not large; but we generally use medicines to stop it, as fine flour, spirit of vitriol, or the oil in water, oil of turpentine, nitre dissolved in water, or vinegar. When the blood has stopped in a large wound, there soon comes on a sense of heat, pain, redness in the cavity of the wound, and a fever and thirst begin, which continue until the wound begins to suppurate and discharge the thick white matter, which should be in about four days. This healing is the sole work of nature, and needs no assistance but to keep the wound clean by such washes as are cleansing and at the same time healing. If it heals too fast, fungus or proud flesh will collect or grow and prevent the wound from healing; this is usually destroyed by corroding medicines, as red precipitate, Roman vitriol, or lunar caustic; but there is a more safe and easy method of keeping it from forming, viz.: use the dry powder of comfrey root, on a little dry lint; the powder of burnt wool will perform the same office; then the wound may be healed by the common way. The reason that so few succeed in curing malignant sores and ulcers is, that they disregard any discrimination in the medicines according to the constitution of the patient. A wound of a choleric person must not be treated with so hot medicines as one of a cold, phlegmatic constitution; so in one that has his blood inflamed by the frequent use of spirituous liquors, or has any fiery humor in the blood, warm ointments and plasters should not be applied, for they draw those hot humors to the wound, and, instead of healing it, make an ulcer. Put on plasters that will retard those humors, such as diachylon, or an ointment may be made of our plants, which, in my opinion, is much to be preferred; viz., of mallows, comfrey, and yarrow, with neat's foot oil and bees-wax; this is a temperate ointment, and is not heating; will heal fast; but if it is required to be a little warmer, add white pine turpentine or fir balsam. By experience I learn that an ointment made of tobacco, hog's fat, turpentine, fir balsam, and bees-wax, is most excellent both to cleanse and heal. Ointments or plasters, to be applied to the feet, legs, or hands, must be warmer and more drawing than those near the trunk of the body, by reason of the parts being more cold.

It may be remarked here, that, when a small artery is cut asunder, the ends slip back and stop the blood: but if the artery be only half cut off, it will bleed continually; and if a large artery be cut, it will be almost impossible to stop it, as a great artery of the thigh; the jugular vein, being cut, causes immediate death. In these cases an attempt is to be made by sewing up the wound, and applying the puff-balls; opium is good, and may be put even into the artery, when nothing else will do. The nerves, when cut, will fly back, which causes great pain and numbness below the wound, producing tumors, delirium, convulsions, and stiffness in the limb, and want of motion. The same symptoms occur when the tendons are cut, which must be brought together and kept so by bandages;

then they will callous, as bones do, by the aid of a strengthening plaster. Wounds of the nerves or tendons are very apt to putrefy; so a puncture is worse than a cut. Thus, in bleeding, there sometimes arises a small knob or tumor, as large as a nut, which, in time, becomes painful, and often putrefies, occasioning the loss of the limb. In this case, dip some lint in brandy or other spirit, and wash it often, rinsing it with spirit of turpentine; cold is apt to make it swell and putrefy.

Gun-shot wounds are, of all, the most difficult to heal. There should be an extraction of all extraneous matter, then the wound be syringed every day, or twice a day, with honey, soap, and water, to cleanse it perfectly. Oil of myrrh and tincture of myrrh are good, injected, to cleanse it; but the Samaritan balsam is much used, which is only oil of olives, simmered together to the consistence of balsam. Sometimes a wound near the joint, as the knee, will cause the whitish water to issue, and occasion the loss of the joint. In this case, the greatest exertions must be made to stop it as soon as possible, by filling it with some dry astringent.

Ulcers.—These cause a feverish state, which wastes the body, the same as ulcers on the lungs. In the cure of these, medicines must be given internally, as well as applied to the sores themselves externally. To sweeten the blood, use a decoction of sassafras and sarsaparilla. An issue must be made on the opposite side, both in ulcers of the internal and external parts of the body. Merc. dulc. mixed with sulphur, bloodroot, snakeroot, and antimony, is a very good medicine. Ulcers should be washed every day with healing and cleansing decoctions, which are found in abundance among our plants. Camphor dissolved in spirit of nitre is very penetrating, but mixed with honey is more detergent; tobacco ointment may be used to a beneficial purpose. If fungous flesh grows in the ulcer, it must be dissipated by precipitate, and Roman vitriol, or the powder of burnt wool. If the lips of the ulcer be calloused, it never can be healed, until it be taken away by the knife or some caustic. Sometimes, in an ulcer, the bone is carious and full of holes, small pieces of bone come out, as if fractured; these are hard to cure, yet, by following simple prescriptions, I have removed the disease, and saved many a limb, that others would have thought it necessary to amputate. It is sometimes attended with an ague or cold fit, then called an *ague sore*; at other times with a feverish ferment; then it is called a *fever sore*. Those affected should be careful to avoid cold, and not wet their feet. Bloodroot must be taken once or twice a week. Simple ulcers are seldom to be found; they are most always complicated with some other disorders, as hot or cold humors, too much moisture or dryness, all which require a different treatment. If hot, the disease will eat away the solids; then cooling medicines must be given inwardly and outwardly: milk diet is good, while any thing salt is injurious. If it be cold, the ulcer will look white and soft about the edges, like white swellings; then give astringent medicines, such as turpentine, fir balsam, &c. If it be moist, and run plentifully, with an appearance of fungus growing, use warm ointments, as fir balsam, tobacco ointment, with turpentine, &c. If it be dry, then apply moistening medicines, as honey, mixed bloodroot, or an ointment made of jalap root, simmered with lard and honey: this is a sovereign detergent, and will penetrate to the bottom; but should walnut leaves be boiled in water, and a little honey mixed, then applied to the ulcer, it is the best of all.

Gangrene, or Mortification.—This occasions a total loss of life in the part, and the loss of life in the part is a sign of the mortification in fresh wounds, as is known by the easing of the pain, the wound turning bluish and black, with yellow spots. A thin yellow water will ooze out, and a bad smell is perceived; if this is not immediately stopped, death will be the next guest, for it will continue to spread.

Camphor, snakeroot, and bloodroot, may be given internally and used externally; camphor dissolved in spirit, and horse-dung boiled in urine for a bath, never fail of arresting its progress. Oil of turpentine mixed with aloes, may be used; it must not be kept too hot with bandages, must be dressed often, especially in warm weather. Spirit of wine, or some other, with penetrating ointments, that will not be too inflaming, must be used in colder weather. Tincture of myrrh is very good, and tobacco ointment, simmered in oil, will be found very useful. In all these cases of sores, ulcers, and malignant wounds, a steady, constant treatment, and application of the most simple medicines, will more often effect a cure that is lasting and radical, than recourse to mineral compounds, the effect of which, to say the least, is quite *uncertain*.

OBSTETRICS.

Chlorosis, or Green Sickness. — This disorder virgins are subject to, and women who do not use copulation. The symptoms are paleness of the face, bluish circle under the eyes, or reddish inclining to black, a slow fever, unequal pulse, vomiting sometimes and suppression of the menses; but a bare suppression is not the cause of this disease, and is only a symptom of it. It is occasioned by a want of heat and vigor in the system. In cold, phlegmatic women, the circulation is slow, and cold humors lodge on the glands. There is not sufficient heat to digest these cold, crude particles, whereby the whole constitution suffers; the stomach is unable to perform its digestive office; the patient is affected with a loathing of food and longing for unnatural things, as coals, chalk, cinders, clay, and red earth. Marrying will generally put an end to the disease; yet it is not always so. Therefore such medicines as heat the blood and quicken its motion, must be sought, as bitters with hot spices and chalybeates. Take wine one quart, filings of iron two ounces, cloves one ounce, cinnamon half ounce, mustard seed in powder two spoonfuls, bloodroot in powder one spoonful, prickly ash bark two spoonfuls, sweet flag half-spoonful, and steep these in the wine two days, frequently shaking, — take half a glass in the morning, walk about, use exercise, rise early in the morning, and at night take twenty-five drops of elixir proprietatis.

Menstruation. — Women only are subject to this, though some have never had it, yet remain in health. This flux proceeds from, or is occasioned by, the superfluous chyle, which the natural heat of women cannot digest, there being more superfluous chyle in woman's blood than in man's, and her heat and vigor not so great; therefore it is separated from the circulating blood, and passes off through the ducts of the uterine vessels, where it cannot pass on account of the thickness and largeness of the particles; so they are lodged in those ducts until they are full, which in a healthy woman is once a month. If this menstrual flux be too thick to pass, it will cause pain at the time of its discharge, or be suppressed. The quantity discharged is from five to ten ounces in a healthy woman. It may be noted that pregnant women do not have this discharge, for the child in the womb is wholly nourished by the chyle of the mother through the umbilical cord or navel-string. The milk is produced from the chyle with but little change; also, women who nurse do not discharge, if they give out a good quantity of milk. It is said by many, and not without reason, that both men and women have this discharge, though not in the same way or manner. Men, old women, and young girls, once a month discharge a larger quantity of urine than at any other time; and this answers the purpose for their health as the menstrual flux does in woman. This flux begins in woman at the age of fourteen and ends at forty-five; yet it does not always prove so, for some have had it at eight or nine, and continue until sixty or seventy years of age.

Obstruction. — Those women who never had a flow of the menses are not to have them promoted, for it is the sole work of nature; but should it be otherwise, they must be assisted by medicines. Chalybeates are not safe for the person of the choleric or sanguine temperament; but for the cold, phlegmatic, they are the best. For a person of the sanguine complexion, take the juice of wild flower-de-luce six spoonfuls, brandy half pint, mix old bloodroot two spoonfuls, a sirup of mallows one gill, let the patient take one spoonful every morning. Or take black hellebore in powder one ounce, aloes one ounce; mix these to pills in sirup of buckthorn and elder flowers, and take as before. If the patient be phlegmatic, filings of iron four ounces, cider one pint; steep them together two weeks, and the iron will be dissolved; then put the cider into a clean bottle, and add to it one pint of brandy, one ounce of cloves, one ounce of cinnamon, and a spoonful of the juice of horseradish root; let this be taken twice a day to the amount of a large spoonful or more; every morning take a few grains of sulphur.

Difficult Menstruation. — The patient, in the time of menstrual flux, has excessive pain, resembling that of the colic, or labor pains, or hysteric fits. It is occasioned by the thickness and sharpness of the menses. To remedy this, use spermaceti oil, or the oil of linseed. A tea-spoonful of flaxseed taken several times every day, is a most sure medicine, and its efficacy is well known. The menses often force through unnatural passages, as eyes, ears, &c., or cause spitting of blood, which is hard to stop; but flaxseed

is the best, or powder of comfrey and sirup of mallows are good.

Immoderate Flow of Menses. — This causes pain in the back and disorder of the stomach. In women advanced in years it is difficult to obtain a cure. They are generally scrofulous, and this flow should not be stopped suddenly. The cortex Peru., or Peruvian bark, is the medicine that will effect the cure; hellebore given in brandy scarcely ever fails; hackmatack balsam is good and safe mixed with loaf sugar; sarsaparilla tea may be used as a common drink.

Fluor Albus, or Whites. — This flux is sometimes white, green, yellow, or blackish, sometimes sharp, corroding, and very foul. The symptoms are paleness of the face, pain in the small of the back, swelling of the feet, and sometimes of the eyes. The cure depends on strengthening the blood. Sometimes there is an ulcer of the womb taken for the whites. It may be known by this, viz.: the matter discharged is bloody, and there is a great itching in the mouth of the uterus, and is often attended with great pain, and heat of urine, and strangury. This must be treated, as ulcers, with balsams and turpentine given inwardly, and sometimes injected into the cavity; merc. dulc. is often given, and a decoction of sarsaparilla, feverbush, and sassafras root will sweeten the blood, and often effect a cure of this disorder. Isinglass, comfrey, Solomon seal root, and flaxseed may be used in a decoction. Hackmatack bark, or its balsam, is preferred before all others yet known.

Conception and Pregnancy. — The usual signs are suppression of the menses, loathing of food, sinking of the eyes, water pains, a great flow of saliva, frequent vomiting, livid cheeks, sweats of the belly, slow pulse, &c.; and most of these symptoms are common with hysteric women who are not pregnant; therefore good inquiry must be made before deciding. Some women have their menses for the three or four first months of their pregnancy, and others have them quite through the nine months; therefore one may be deceived. Pregnancy differs from the dropsy; for in the latter the face is very pale, while in the former the face for the most part is very red. The cause of barrenness in a healthy woman has put many physicians and men of science to their trumps, while they suppose the fault to be altogether in the woman; but experience teaches that this is far from being the fact; it is often in the man, for many men are known, who have had strong desires for children, have died, their wives married again, and then had children — so on the contrary. Therefore it can be inferred, if both are not equally tempered in the conjugal embrace, they will not produce. Sometimes a woman will have one child, then cease forever; others will cease for many years, then bear children. The circumstance is not unfrequent that persons never have children until quite old; one occurred only recently, in one of the New England states, where they had been married thirty years, and had an issue for the first time; the woman was aged forty-nine and the man fifty-three. Conception and pregnancy afford a wide field in which philosophers may range and make many speculations. I forbear more.

Mola. — This is a fleshy substance growing in the womb: sometimes there are several, but generally only one. Sometimes it grows in a few months, then again it is many years growing. It is known from a child by its falling from one side of the womb to the other when the woman turns; it is hard to be brought away, but sometimes passes off by giving strong physic. A watery mola is composed of a great number of hydatides connected together by blood-vessels. A windy inflammation of the womb is caused by wind being put up in it; it often deceives the woman, and makes her think that she is pregnant, for her breast swells, and sometimes gives milk; at times women go in this condition a year, but it often passes off sooner. If the swelling does not arise in the middle of the belly, but extends equally every way, it may be cured by administering the medicines prescribed above for the obstruction of the menses, that is, if it does not pass away of itself.

Dropsy of Womb. — This disorder occurs when clear water is contained in the womb. It happens to some women who are pregnant; but abortion will generally take place, and the water pass of. When this happens to those who are not pregnant, it is very dangerous, and can hardly be distinguished from the ascites, and is to be cured in the same way.

Dropsy of Ovarium. — This is when one of the ovaries is obstructed and grows to

a prodigious bulk, with water resembling ascites, and is very hard to be distinguished from pregnancy. It is incurable. Have known three cases, and the women all died.

Abortion. — Some women cannot carry a child through the term of nine months, but will miscarry. To prevent this, if the pains come usually at the time the menses used to flow, bleed at that time once every month, in the arm, until the pain ceases to return. The best medicines to prevent abortion are, linseed oil, a tea-spoonful twice a day, or flaxseed in powder, the same quantity, mixed with rosin and sugar; or take cohush root, sarsparilla root, and goldthread, steeped in brandy, and take a glass every morning. If vomiting continues in the last months of pregnancy, it is dangerous. Bleed, and give four or five grains of the powder of lady's-slipper. If the waters break some weeks before delivery, it is to be feared that the child is dead, although it is not always so. There can be nothing done better than to give linseed oil, or the seed itself.

Births. — It is proposed to consider these under the different heads of natural, unnatural, difficult, and easy births. Let it be remembered, that some women go longer with child than others, though the usual time is nine months. The true labor-pains begin at the loins, and run downwards to the lower part of the abdomen, and to the region of the os pubis, hence, seizing the buttocks and hips, bring on a trembling of the knees, also cramps and spasms. If the pain lingers about the limbs, or continues at the stomach, it is a bad symptom, and bleeding is necessary. Take cohush root, sarsaparilla root, and trumpet-weed root, boil them in water to a small quantity, then strain and add a little wine or brandy. Give the woman a little in the time of travail. It prevents faintness and forwards delivery; causes the woman soon to recover, by preventing a fever. It preserves her also from taking cold. The following Indian medicine should be well noted, viz.: should the woman be taken with vomiting (as some are in time of travail,) put into the above drink the lady's-slipper, which will immediately stop the vomiting, and turn it downwards. For the safe delivery of the woman, it is quite necessary to understand the form of the pelvis and the bones that compose it; for ignorance of this often causes more trouble than the bad posture of the fœtus. If the pelvis be formed straight and in a direct line, the woman will have easy travail; if not, as is sometimes the fact, when the bones of the pelvis have dilated, and the fœtus has projected its head downwards, with its face towards the woman's back, though this is the right position, yet it cannot come forward into the middle of the cavity of the pelvis, because it is not straight, but falls against the bone that is directly in contact, either the sacrum or pelvis; and when so situated, the violent throes in labor will bring the shoulder or some limb forward, while the head will be held fast behind the bone. When it advances, one arm often comes first; then the pains cease. In this crisis it is impossible to deliver the woman and child both alive, for the child is in such a situation in the pelvis that it cannot be put back or delivered, but must be dissected. Yet, if the pelvis is straight, it may be put back and turned. Therefore, if the midwife knows the structure of the pelvis, and that it is not straight, he or she, as the case may be, must be very careful to lay the woman in such a posture as will favor the delivery; and so on the contrary. If the mouth of the uterus be over the os pubis, which most usually is in large-bellied women, let the woman lie on her back to receive delivery. If the mouth of the uterus be against the os sacrum, she must be held forward, and delivered either in the lap of some person, or on her knees. In these crooked pelves, where the waters break away, there should not be a moment lost, nor, indeed, in any other case, if ever so straight, for the fœtus now presses forward, and if it comes against any of the bones, is apt to turn and come crosswise. This will make a great difficulty in that of a straight line. Therefore the head of the fœtus must be guided directly forward to the middle of the pelvis, taking care not to move it only when the woman's pains come upon her. The uterus, in a right posture, is located in the middle of the pelvis, and is of the shape of a pear or gourd, with its head or neck downwards. The head of the gourd, or womb, is called the *vagina*, and is somewhat softer than the womb itself. The womb is called the *uterus:* but in time of travail the vagina is so relaxed that it becomes all one with the womb, and appears as one common bag, so that they cannot well be distinguished from each other. The mouth of the uterus is not in the longitudinal direction of the backbone, but oblique, like the mouth of a dog; therefore the hand must be directed from the bottom upward, as if you would reach the

navel, the back of the hand crowding against the point of the os sacrum, as this procedure helps enlarge the pelvis in the time of delivery. If the hand is put into the vagina in a direction lengthwise of the body, the curvature of the os sacrum will be met, which will confound one in finding the mouth of the womb. The larger the fœtus, the more water there is in the womb — the higher it will rise into the abdomen. Generally, a few days before delivery, the woman's belly appears somewhat less, because, when the child is rightly situated, it pitches its head forward into the cavity of the pelvis, and this is a sign of a safe and speedy delivery. If the child is in a bad posture, or the womb not rightly situated, it does not easily fall into the cavity of the pelvis.

When the time of true delivery has arrived, the woman is affected with pain, which increases and returns by intervals. These pains are in the back and hips, with the bearing down and oozing out of a glutinous matter from the uterus; which, just before delivery, turns red. A shivering seizes if the pains be true and the mouth of the womb is extended. If the pains be false, it will be more closely shut. The motion of the blood is likewise increased, and the jugular and other veins are swelled. In a natural birth, where the womb and fœtus are in a right posture, there is no need of any assistance only to receive the child, to cut the navel-string and tie it, which should be about four inches or finger's length from the belly; then the afterbirth must be extracted. Some women, and especially those in years, are more apt to be attended with difficulty than those who are younger; therefore the midwife should introduce one of her fingers as far as she can under the child's head, and there hold her hand quite still until the labor pains come on again, and the other hand placed upon the abdomen, near the bottom of the womb; then, with the hand within, press back the os sacrum, and with that without, press the child gently forward at the return of every pain. Forcing medicines are never to be given, for they only increase the torture of the patient, and cause a flooding afterwards; but if the pain be lingering, give anodynes and lenients, as mallows and flax-seed; then, if the child lies right, and the mouth of the womb be in the middle of the pelvis, nothing is to be done until nature brings on the delivery by true labor pains. If the mouth be rightly situated, and the midwife cannot find either the head or buttocks of the fœtus, or any part presenting only the protuberance of the waters, she may be assured that the child is coming cross-wise. When the waters break away, if she cannot find how to turn it, she may think it a difficult task. If the head cannot be brought to the mouth of the womb, she must endeavor to deliver it feet first. The delivery being effected, the navel-string must be cut, then held as a guide to the afterbirth, which must be immediately extracted while the mouth of the womb is open. In a large pelvis, the womb is apt to prolapse; to prevent which, the midwife, in the time of delivery, must support the mouth of the womb with her hand, lest it fall down, and the vagina prolapse, causing a serious and lasting difficulty with some women. The navel-string, called the *umbilical cord*, in general surrounds the forehead of the fœtus. When it is twisted around its neck, or any way entangled, it should be loosened. If the cord of the hand, elbow, knee, or shoulder, should present itself at the breaking of the waters, it may be known what posture the child is in, and there must be no delay, in order to deliver it head first; but if it be easiest to come feet foremost, it should immediately be attempted, for in all wrong situations of the infant, the least painful way is by the feet, after the waters break away. If the feet can be taken hold of, instruments are never to be used, unless the birth be monstrous. It is hard to tell whether the child be dead or not in the womb, but the woman can tell best by its motion. Should it be dead, it must be extracted without delay, as a great flooding often takes place. Sometimes a flooding comes on in time of travail, and this mitigates the pains, for, at every pain, the flooding increases. In this case, the delivery should be hastened, or faintness will quickly follow, and after that, convulsions and death. A dead fœtus is hard to be extracted, as it has no motions of its own. Therefore, if you can come at the head, enter a hook into the eye or temple, and, as the pains come on, gently draw it forward until extracted. This is a good method of extracting dead infants; but it has been very much abused of late, as those ignorant and inexperienced have inserted this hook in the heads of living children, and thereby destroyed many. The safest and best way is to take a ribbon and tie both ends to the left wrist, and with the right hand take the middle of the ribbon in two forefingers, and slip the bow over the child's head; then gently draw forward the

fœtus with the left hand, and the head with the right. This will not hurt a living child. If the head cannot be reached, try for the feet. If it comes crosswise, and is dead, it must be dissected. In this case, the woman will either have no pain at all, or be in great torment. Her strength will waste continually; consequently she must have cordials to renew the spirits. Whatever part comes first must be taken away.

Extracting the Secundine. — The woman must not be put to bed until the secundine or afterbirth has been extracted. If the secundine adhere to the womb, the fingers must be inserted very gently to separate them, at the same time taking care not to lay hold of the womb or uterus, which is known by its being softer than the secundine. If it is long retained, it soon putrefies, and brings on torturing pains in the bowels, fainting fits, bleeding, and convulsions, all which are very dangerous. The matter discharged is very fetid. Flaxseed given inwardly and oil of castor are very good; bloodroot and snakeroot mixed in a dose of three or four grains twice a day may be given; clysters of mallows may be administered if a strangury occurs.

Lochia. — This is a cleaning of the body after delivery. It continues to flow in some longer than in others. At first, it is nearly clear blood, but grows paler as it proceeds, until it becomes almost white. It is the work of nature, and should not be obstructed. If the woman is kept too hot or cold, it will be checked. If all that was ordered to be given in travail is observed, all these difficulties will be prevented. To promote the lochia, some give myrrh, castor, and diaphoretic antimony; and, to prevent its flowing too much, they give astringents, or astringent rust of iron. Care must be taken not to stop it.

After Pains. — These often happen to childbed women, and are very severe, but can be easily helped by frying an onion in neat's foot oil and applying it to the navel; or apply, in like manner, a bag of wormwood and tansy while hot. Flaxseed oil may be given inwardly.

Important Fact. — A tea-spoonful of flaxseed, in powder, may be given once a day for the three last months of pregnancy, and it will produce an easy delivery, and prevent the above-mentioned pains to a great degree.

Milk Fever. — This comes on about the third or fourth day after delivery, at the coming of the milk, and soon ceases of itself, *most generally*. If it continues, give a little camphor or snakeroot, and a gentle sweat; these will carry it away. Sometimes a malignant fever attacks childbed women, which causes a tickling of the ears, heaviness in the head, difficulty of breathing, with a weak and irregular pulse. In this case, great care should be taken to promote *lochia*. Bloodroot and snakeroot are to be given as in other fevers.

Prolapsus Uteri. — This is a falling down of the womb. It at first only hangs out but little between the labia pudendæ, or lips of the privates, increasing to the size of a goose egg, and frequently as large as a child's head, and hangs down to the knees. It is occasioned, in most instances, by fluor albus or difficult birth. The part thus prolapsed is to be put up, and strengtheners used both externally and internally; astringents may be given in wine, as cortex Peru., cherry-tree bark, or that of sloe root, &c. Fermentations must be applied to the prolapsed part; but should it mortify, there is no remedy, though some pretend to perform it by excision. *This* cannot be recommended, for, by proper attention, a cure can be effected without it.

In addition to the foregoing remarks and directions on midwifery, I have thought it best to subjoin the following treatise, founded on my experience, and corroborated by various authors, inasmuch as too much information cannot be spread abroad in regard to this subject. By accouchement is understood either an emission or extraction of the infant, at the full time, out of the womb. This definition may comprehend as well the natural — which is accomplished by emission; when the infant comes in a commodious and usual figure, the womb sends it forth without extraordinary violence — as the delivery contrary to nature, which is often compelled to be performed by extracting the infant by manual operation. Every time the womb lets pass or sends forth whatsoever it has retained and formed after conception, must not be called a labor; for, if a woman voids by the womb what was contained in the beginning, after she had con-

ceived, it is properly called an *effluxion* or *slip;* because at that time there is nothing formed or figured, neither have the seeds yet any firm consistence, which is the cause why it slips away so easily with the least opening of the womb, as it often happens between the first conceiving and the seventh and eighth day only; after which, until the end of the second month, the woman lets slip false conceptions, which turn to molas if they continue any longer in the womb: *this* is then called an *expulsion.* If, after the third month, or thereabouts, the time when the *fœtus* is wholly formed and animated, it is sent forth before the seventh month, it is called an *abortion;* which is always the cause that the child comes dead, or dies soon after it is born. But what is properly called *labor*, or *delivery*, is the issuing forth of an infant after the end of the seventh month to all the remaining part of the time afterwards, because there is then a sufficient perfection, as also strength enough to come into the world and live.

The common idea of the present day, that abortion can be produced with impunity to the constitution and life of the patient, is highly *absurd*, notwithstanding certain *would-be-scientific men* assert the contrary. As to the general differences of labor, notice must be taken, that one is legitimate and natural, the other illegitimate, or against nature. To come to the knowledge of each, we say that there are four conditions that must absolutely be found, in order to make the delivery properly called *legitimate* or *natural*, viz., first, that it be at full time; second, that it be speedy, without any considerable accident; third, that the child be living; and, fourth, that it comes right, in a good posture or situation; for if any of these four are wanting, the delivery is against nature, and the more so by how much there are more of them wanting.

As to the due time of labor, most authors assert that nature has appointed to all animals a certain limited time of going with young, and bringing them forth; but that woman only, by a particular favor of the same nature, has none prefixed, either for conceiving, going with child, or bringing it forth. As to conception, it is most certain that a woman can conceive at any time, night or day, summer or winter, or any other season; because she can copulate when she pleases, which few animals can, that only copulate at certain seasons when they become lustful. As to the time animals are accustomed to go with young, it is no more precisely determined by nature to them, than to woman, for she may be brought to bed either in the seventh, eighth, ninth, tenth, yea, sometimes, in the eleventh month, though, for the most part, in the ninth month; so, likewise, many animals vary in the time of producing their young, after conceiving, according to the quality of their food, richness of their pasture, &c. The same may be observed in fruits, for the seasons or different climates always more or less assist their speedy maturity, which depends also very much on good husbandry. The first time that a child may live when born, is the seventh month complete, and it will the better from that to the end of the ninth month: but as soon as that time is passed, the remaining in the womb is any thing but beneficial to it, because it has then acquired all necessary perfection and strength sufficient to resist all outward injuries. The child born before the seventh month cannot live long, as we said before, because of its weakness; but one that is born in the eighth month may very well live, yea, and more likely than if born in the seventh month, (which is contrary to the opinion of all the world,) because it is more perfect, as I shall demonstrate more particularly in the course of these remarks.

As we sometimes see children born at the seventh month's end that live notwithstanding, so there are some women not brought to bed until towards the tenth month, and sometimes not till the beginning of the eleventh month. Although this may happen to some, there are many who deceive themselves in their reckoning, believing that they have been pregnant seven or eight months, and sometimes ten, or more, when they have been but just nine months. They are deceived in this manner, viz., in supposing themselves pregnant precisely from the suppression of their menses, as is not always a sure criterion; because some have wanted their menses two months before pregnancy, and others, on the contrary, have them two or three months after, in the usual manner, which daily happens, according to their different constitutions and temperaments, more or less sanguine.

If the entire and perfect term be necessary to a legitimate and natural birth, a good figure and situation of the child is no less so, which should come with the head first, in a straight line, having the face turned downwards, that is, towards its mother's back, the arms couched along its sides, and the thighs stretched upwards. This position is much

the better, and more convenient, because after the head, which is the largest part, has passed, all the rest comes forth easily; any other part that may present itself first, makes the delivery unfortunate and against nature, in which case there is often great danger to both mother and child, if not suddenly and duly helped.

Those who have no perfect knowledge of the parts of a woman's body, obtained by anatomy, are contented to admire, and cannot conceive how it is possible that an infant so large can pass, in time of labor, through the vagina of the womb, so small. Many authors are of opinion that the woman's os pubis is separated to enlarge the passage at that time, without which it would be impossible for the infant to have room sufficient to pass; therefore women somewhat antiquated suffer more in their first labors than others, because their os pubis cannot be so easily separated at the hour of delivery. Others attempt to make it appear quite plausible, by asserting that these bones are by degrees disposed to separate by the slimy humors which flow from the womb, and mollify the cartilages, which at other times join the bone firmly. But these opinions are as far from truth as reason; for anatomy convinces us clearly, that the womb by no means touches these places, or mollifies them by its humors; besides, these bones are so strongly joined by cartilages that it is quite difficult to separate them with a knife.

If the different figure and structure of the bones between a man's and a woman's skeleton be carefully examined, we shall find a larger empty space and distance in the bones of the pelvis of a woman than of a man; while the whole general structure of the pelvis is different, evidently provided by nature for the reproduction of the species. The idea that the bones of the pelvis are separated at the time of labor, is not verified by the fact that some women have walked immediately after, which they could not do were these bones disjoined. Moreover, having often seen and dissected women dead a few days after delivery, I found it very difficult to separate these bones with a strong, sharp knife, while I could not find any appearance of any preceding separation. If older women have more pain with first children than younger women, it cannot arise from this cause.

Having sufficiently explained what is delivery, and all its differences, we will now examine what signs usually precede, and what accompany, a natural delivery and an unnatural one.

When women with child, particularly of their first, perceive any extraordinary pains in their belly, they immediately send for their midwife, taking it for their labor; who, when she has come, ought to be well informed of the situation, and be careful not to hasten her labor before there is a natural disposition; for many times both mother and child lose their lives, when it is excited before the time. Those pains which may be called *false*, are usually caused by a colic proceeding from wind, that comes and goes, griping the whole abdomen, without any forcing downwards or into the womb, as those pains do which precede or accompany true delivery. This colic may be dissipated by warm cloths applied to the belly, and a clyster or two, by which the true labor pains are rather furthered than hindered. A woman may feel other kinds of pains, coming from an emotion caused by a flux of the belly, that are easily known from the frequent stools which follow.

The signs preceding a natural labor, a few days before, are, that the belly, which before lay high, sinks down, and hinders a woman at that time from walking as easy as she used; while there flows from the womb slimy humors, appointed by nature to moisten and smooth the passage, that its inward orifice may the more easily be dilated when it is necessary, which, beginning to open a little at that time, suffers that slime to flow away. It proceeds from the humors that strain through the thin substance of the infant's membranes, and acquires a viscous consistence by the heat of the place.

The signs accompanying present labor, showing that her time has already arrived, are, great pains about the regions of the reins and loins, which, coming and reiterating by intervals, answer in the bottom of the belly with congruous throes; the face becomes red and inflamed, because the blood is much heated by the continual endeavors the woman makes to bring forth her child; also, during these strong throes, her respiration is ever intercepted, wherefore much blood has recourse to the face. Her private parts are swelled, because the fœtus's head often comes forward, and causes the neighboring parts to distend outwards. She is often subject to vomiting, which makes many believe, who know not the cause of it, that the woman to whom it happens is in danger; but, on the contrary, it is ordinarily a sign of speedy delivery, as the good pains are then excited and

redoubled every moment, until the business be finished. This vomiting comes from a sympathy between the womb and stomach, occasioned by the agitations and frequent convulsions in the lower abdomen, and by the strong compression of the muscles during the throes. When the birth is very near, women are troubled with a universal trembling, principally of the legs and thighs, not with cold, as at the beginning of an ague fit, but with the heat of the whole body, while the humors which then flow from the womb are often discolored with blood, which, with the signs above mentioned, is an infallible mark of the nearness of the birth. Now, all these, or a greater part of them, coming together at what time soever of a woman's pregnancy, whether full time or not, one may be assured that she will soon be delivered; but great care must be taken not to hasten her labor before the necessity of it be known by these signs, for it would but torment the woman and child in vain, putting them both in danger of their lives.

Labor contrary to nature is when the fœtus comes in an ill figure or situation; as when it presents any otherwise than the head first, as also when the waters flow away a long time before it is born, because it remains dry in the womb, and the waters are absolutely necessary to moisten the passage and render it more slippery. When the after-burden comes first, it is an accident which renders the labors always dangerous, by reason of the great flux of blood usually following, of which the mother may die in a few hours, and the infant is quickly smothered in the womb for want of respiration that it then needs, if it remain ever so little afterwards.

The labor is also grievous when accompanied with a fever, or any other considerable distemper, which may destroy the child in the womb; also when pains are small, and come slowly, with long intervals and little profit, by reason of which the woman is extremely fatigued; but the difficulty most frequent and ordinary comes from the infant's wrong position. — We come now to the inquiry of some particulars, without which it is impossible to assist a woman safely in her natural labor, or to help her in her unnatural ones; therefore we will examine every thing that is in the womb with the fœtus during pregnancy, and describe those that first offer themselves to pass the orifice, when she is near her delivery, which are the membranes of the infant, and the water contained in them.

As soon as the two seeds have been confusedly mixed and retained by conception, the womb immediately after, by means of its heat, separates this chaos, to make out of it the delineation and formation of all its parts, and begins to work upon these seeds, which, though to the sight they appear similar and uniform, yet in effect contain dissimilar parts; all which it separates, and distinguishes one from the other, enclosing the most noble, and on the outside the most glutinous and viscous, of which first the membranes are formed, to hinder the spirits, wherewith the spumous seed abounds, from being dissipated, and to serve afterwards to contain the fœtus and the waters, in the midst of which it swims. As the membranes of the fœtus are the first parts formed, so are they with the waters the first that in time of labor present themselves at the passage before the infant's head. Most authors are so dark in the descriptions they make of these membranes, that it is very hard to conceive of them as they really are. They do not so much as agree in the number of them; some reckon three as well for a child as a beast, to wit, chorion and amnias, and the allantoides; but there will never be found but the two former, which are so joined and contiguous one to the other, that it may be said to be but a double one, that may indeed be divided into two. The better to conceive this as it is, and after what manner these membranes are situated in the womb, consider the composition of a foot-ball; imagine the leather which covers it to be the womb of a pregnant woman, and the bladder blown up with wind within the foot-ball to be this double membrane of chorion and amnias, in which are the child and the waters together; and as the outside of this bladder touches every where the leather of the foot-ball, so the membranes of the fœtus are joined on all sides to the womb, except where the secundine or burden cleaves to it, in which place it passes above it.

Sometimes infants, at their birth, bring forth these membranes upon their heads, and then it is said they will be fortunate; which is merely superstition, because it happens by the strength of their substance that they are not broken by the impulse of the waters, or the woman's throes; or because the passage being very large and the infant very small, it passes easily without violence to the membranes. In truth, in this respect, they may be said to be fortunate, having been born so easily, and the mother also, for being so speedily delivered; for, in difficult labors,

children are never born with such caps, because, being tormented and pressed in the passage, these membranes are broken, and still remain there.

Within the infant's membranes are contained the waters, in the midst whereof he swims and is situated. These waters, as it seems to me, are generated out of vaporous humidities, which transude and exhale continually out of the infant's body, and, meeting these membranes, through which they cannot pass, as they are too thick and close, are turned into water, which is thus, by little and little, collected, as well during the first months of pregnancy, the child not yet being quick, as all the remaining part of the time after it is animated; for vapors pass forth and exhale out of all porous bodies that are hot and moist, as is that of an embryo. It must be observed that, when there is more than one child, they are never in the same membrane, unless their bodies are joined and adhere together, which is rare, and monstrous when it does occur, but each of them have their membranes and waters separate, in which they are each wrapped up by themselves.

These waters, thus collected within these membranes, have divers very considerable uses. They serve the infant to move itself the more easily, as it were by swimming from one side to the other, and that it may not hurt the womb by its frequent motions against it, which would cause great pain, and often excite to abortion, were it dry. They serve also very much to facilitate its passage in the birth, making the way very slippery and smooth; by that, also, the orifice of the vagina being moistened, is better widened, while they break just as the child is ready to follow, or a little before; for remaining dry, it would be delivered with great difficulty, and the mother also more tormented by it.

Placenta. — Since the infant is only nourished by the mother's blood while it is in the womb, and that big-bellied women never have any that is fair or good, provident nature has formed the placenta to serve it for a magazine, that it may always have sufficient, and be there again elaborated and perfected, to render it more suitable for its nourishment; for, without doubt, so gross a blood as the mother's cannot possibly be converted into its delicate substance, if it were not first purified in the placenta. The placenta is nothing but a spongy, fleshy mass, somewhat like the substance of the spleen, and woven, as it were, and interlaced, with an infinity of veins and arteries, which compose the greatest part of its body, made to receive the mother's blood appointed for the infant's nourishment. This mass of spongy flesh is thus called, because it resembles in figure a cake: some call it the delivery, because, coming forth after the child is born, the woman is quite delivered of the burden of her great belly; it is likewise called the after-burden, because it is a second labor. There are others who call it the uterine liver, because it serves as a liver to prepare the blood appointed for the infant's nourishment. This placenta is made of menstruous blood of the mother, which flows into the womb, by the accumulation of which is formed this parenchymatous mass. The shape of it is flat and round, of about the size of a common plate, and two fingers' breadth thick near the middle of it, where the umbilical vessels are fastened; but it is thinner towards the edges of all its circumference. It is covered by the chorion and amnias on the side next the infant, and on the other side it is joined and fastened to the inside of the womb. It is strongest united to the womb by means of the chorion, which cleaves so close to it by the interlacings of an infinity of vessels, that it cannot be separated from it without laceration of its substance.

Although there be two children in the womb, nay, three or more, that is to say, begotten in the same act, they have usually but one common placenta, or after-burden, which has as many navel-strings attached to it as there are children, who are separated one from the other by their several membranes, in each of which the fœtuses are apart with their waters.

We scarcely find any creature but woman that has an after-burden, like what we have described, and discharges it as useless as soon as the child is born; for most all animals cast forth nothing after their young, except the waters and some slime, with the membranes which surround them.

When a pregnant woman has the least indisposition of her whole habit, there is almost ever some mark and impression, either in color or substance, on the after-burden which she voids in her labor; for, it being of a very soft nature, it easily imbibes the ill humors of the body, that used to pass off in the menses. Its natural color is red, and so much the fairer and better colored, as the woman is in good health.

Treatise on Poison. — It is certain that some things taken into the body in a small quantity will destroy life, and these we generally call *poison*. But there may be a question whether any thing may be called poison or not, since use and custom are able to withstand the most powerful of this description. For instance, opium and hemlock are violent narcotics, which cause numbness and stupidity of the nervous system, lethargic sleeps, convulsions and death, and this too by giving very small quantities; yet it is well known that the Turks accustom themselves to take it as our common inebriates do strong drink, and it does not seem to operate on them any more. Opium is sometimes taken among us without any apparent danger. If the above-named things are reckoned as poisons that will at any time destroy life, we must call all things poison, both food and physic; for it is evident that food is. When the stomach is empty, and too weak to digest rich meats, if they are not immediately vomited up by convulsive motions of the stomach, the person will surely die in a few hours, as often happens in or after a fever, or too long fasting. Thus it is that some can eat what would kill others, and receive no harm. So, if a person is very warm, and drink cold water, it will operate as a violent poison, which to another of the same temperature would be entirely harmless. Some persons take it very slowly, which in time operates as a poison. Rum and all spirituous liquors are as poisonous as opium or hemlock, if taken in large quantities, and will as suddenly kill; but taken gradually, the person may survive many years, still continuing the custom of visiting his bottle; but at last he dies, and is his own executioner.

Vegetables, that poison and suddenly destroy life, cause these symptoms, viz.: sickness at the stomach, sometimes purging, dizziness, trembling, dimness of sight, convulsions, hiccoughs, great pain at the stomach and bowels, epilepsy, cold sweats, swelling of the tongue, black lips and mouth, quick pulse, and sometimes a swelled belly; yet all these symptoms are not exactly alike in all cases of poison; then, to close the horrid scene, the juices putrefy, and death makes its appearance. We may further observe, that these symptoms are likewise attended with great heat, and often thirst; if the person's senses remain, he will call for drink. All these symptoms are sometimes seen in a fever, when no poison has been administered, as far so as we are able to judge or know. If we only consider that food and spirit, as the circumstance of the body may be, are poisonous, and will produce all these symptoms, and death itself, how much sooner will medicines do it, if given by those who are ignorant of the disease, or the cause whence it proceeds! It is evident that our bodies are as a well-timed clock; our spirits and fluids are all in motion; and though some of the nerves are not more than the hundredth part of a hair in size, yet it is generally supposed that there is a circulating fluid continually passing through them; and if this circulation is not obstructed, the clock goes on, and will continue in good tone; but when any accident happens to the frame, the circulation is obstructed, and an inflammation is formed, and communicated to all the juices of the body. All the circulations depend on each other, and if one suffer an obstruction, all must be affected in some degree. For example, the sun in the firmament gives heat and vigor to all parts of the globe, and is the life of all animal and vegetable substances; therefore, if its rays be obstructed in one part or another, the whole must necessarily suffer, in all its ramifications and parts. So it is with the human frame: if any of the circulations be obstructed, the body is inflamed according to the greater or less obstruction, and the blood, pressing on the obstructed part for circulation, increases the heat, until at length it putrefies. If it be in an external part, it purges itself, by throwing out pus, until the parts unite.

The heat caused by the obstruction of any internal part is called a *fever*. Thus a hectic fever is produced by an obstruction of one lobe of the lungs, and the inflammation causes an ulcer that cannot be cured, and by it the body is wasted away sooner or later. So a pleurisy is an inflammation of the lungs or intercostal muscles. This is occasioned by sudden colds, which thicken and stagnate the blood; and an inflammation will arise according to the force and fulness of the blood. So it is with intermittents, though they are occasioned by a relaxation, and bracing medicines are often given for the looseness of the fibres, that they may prevent the juices from passing off. It is seen, then, that all obstructions cause inflammations of the remote parts of the body; therefore we may infer that all things which cause obstructions may be esteemed poison, for they cause inflammations. The same comes on by violent blows, cuts, and gun-shot wounds, which cause contusions and great obstructions, some working more privately as gross particles in the blood, occasioned by intemperance of any kind, as

unwholesome food or liquor, impure air or water, violent exercise, furious passions, noxious qualities arising from putrefied animals or decaying vegetable substances, which, being communicated to people, cause diseases according to the virulence of the infection, as the plague, small-pox, cholera, &c. Sometimes I have observed the obstructions which cause fevers, to come on so fast that they soon occasion putrefaction; and if the blood be full and high, they will often, if not always, inflame the nervous juices, and cause all the symptoms of poisoning. At times it works down, causing a diarrhœa, so that some will die in a few days, and others, whose blood is low, will often live many weeks. Those fevers occasioned by internal obstructions, let the symptoms be what they may, proceed from one and the same cause, and must be cured by the same means as poison, such as attenuants, cathartics, and emetics, as heretofore described. Mineral poisons are like fine beaten glass, which sticks fast to the coat of the stomach, and, eating through, cause gangrene. If arsenic or corrosive sublimate be taken into the stomach, it must be immediately thrown out by an emetic or stomach pump, or death will soon ensue.

Animal poisons are most generally occasioned by a bite. They must be drawn out by hot medicines, and immediately too, or the chance of life is lost. For the bite of a rattlesnake or adder, fine salt, mixed with an onion, must be used and often repeated. This is a certain antidote, as my experience has tested in five aggravated cases. The Indians effect a cure frequently, if not always, in the two following ways, viz.: take a pigeon, partridge, or something of the kind, split it, and apply it to the part bitten; or snake's grease put on as soon as it is bitten, is their more sure and common preventive, for it protects the part affected, and prevents the poison from penetrating the solids.

In all cases of poisoning, snakeroot and bloodroot should be used unsparingly; it helps above all things; it thins the juices, and prevents the poison from obstructing the circulation in the neighboring parts. Our vegetable poisons are best prevented by a decoction of sassafras or sarsaparilla, both inwardly and outwardly. It sweetens the blood, and in a little time removes the poison. Sweetening medicines are good in all cases of poisoning. Mineral poisons cause an obstruction in the parts as if bruised, and great heat and inflammation arise, while the parts soon gangrene if it is not removed. The particles, if taken into the stomach, adhere closely to its coats, as before observed, and the gangrene first begins and proceeds through the whole course of the œsophagus. They occasion vomiting and purging; yet the poison remains corroding the coats of the stomach. The patient sweats, and at length a tremor and great weakness seize the body very suddenly, with the appearance of a malignant fever. Bleeding must not be practised, for it draws the venom of the poison into the blood. Blisters may be drawn on the limbs to prevent, in some measure, the heat on the more essential parts of the body; strong cataplasm, may be applied to the feet. This method is to be followed both in malignant fevers and in mineral poisons of all kinds. If a person be hurt by a salivation, give him flour of sulphur, balsam of sulphur, and the like.

It will now appear that those persons who are thus affected with poisons of all sorts, whether obtained by direct reception of them into the system or by various kinds of intemperance, receive obstructions in a greater or less degree, and that these cause fevers, which progress fast or slow according to the force of the blood; thus, if the person be old, or has but little force in the arterial system, the symptoms will be mild at first, as a small pain in the side or stomach, dulness, heaviness of the head, and sometimes a purging with bloodstools; yet the person keeps about, complaining of some illness, as cold shivering, often sweat, and weakness; some are gluttonous, and others lose their appetite, and voice often, with a cough that is very dry. But young, sanguine persons have more violent symptoms; for when the disease begins to overcome the healthy action of the system, they appear red in the face, have a pain in the side, stomach, or abdomen, and by turns are delirious or very stupid, often sweat; others will not sweat, but are exceedingly hot to the touch, often have great heat and distress in the stomach; some vomit, but are not relieved; others purge, but are not eased; their blood becomes thick and corrupt, then putrefaction ensues. This is the effect of poison remaining in the system, whether imbibed gradually or at once. When the blood becomes thick, the person declines into a fever, first by the bile being thickened and stagnated in the small veins of the bile ducts, then by this obstruction, of which we have so frequently spoken.

Therefore, as putrid fevers and vegetable poisons produce the same symptoms, and at last the same disease, we must use the same medi-

cines for a cure. Sweating medicines are of no service, but rather do harm; for they cause the thinner parts of the blood to be exhaled and leave the grosser parts. Blisters likewise do harm; for cantharides enter the pores, heat and inflame the blood, and enrage the fever; they do not serve to bring away the coagulated matter, but increase it. Spirit of vitriol or sulphur is direct poison in these fevers — fevers occasioned by what may be called poisons, as we have described above. That they are occasioned by poison, although by what kind we know not, seems quite certain to our judgment, because it produces the same symptoms and follows the same course. The above medicines, by their corrosive property and acidity, thicken and coagulate the blood, and soon cause a putrefaction. Therefore, in the first place, the blood is to be attenuated. For this purpose give tartar emetic and antimony for two or three days, then a small cathartic; some use calomel five or six grains, and afterwards give physic. Dr. Fessot, who was a very successful practitioner of medicine, used the smoothing, mucilaginous medicines for these fevers; and it is true that they will retard or keep down the inflammation; but I think that they do not divide the grumous parts of the blood, on which the cure depends. Bloodroot, snakeroot, and diaphoretic antimony, mixed and taken a few days, will divide the gross particles of the blood, beyond any thing else known. A potion of physic must be given to carry it off; or, if the person has a strong constitution, a portion of jalap may be given. It will operate well up and down, shaking off all the offensive matter that may be lodged in the stomach or intestines.

Poison communicated by the Bite of Animals. — This is occasioned by the rage and venom of the animal. The poison is contained in the animal spirits, and infuses itself through the pores faster or slower, according to the nature of the animal and velocity of its venom. The more thin and subtile the poison is, the sooner it is diffused, and affects the mass of blood and the juices of the body. Thus the poison of an asp is more thin and subtile than that of any other creature known. It destroys life in about three hours; that of a rattlesnake in six or seven hours; while that of a swift or adder is a thick, slow poison, which consumes the moisture of the animal body, to which it is communicated, by degrees, as a consumption. The person poisoned may live perhaps a year or more. The tarantula conveys a subtile poison when it bites, and is said to be more venomous than the asp, for its effect is instantaneous, so to speak, in every part of the body. It at once checks and deadens the very life of the animal spirits, and, as spirituous liquors rarefy the blood and raise the animal spirits, this poison is of a contrary nature, for it at once quenches the most acute parts of the nervous fluids, and though this would in a short time occasion death, yet it is effectually cured by music and spirituous drinks.

Animal poisons of all sorts consist of a subtile, penetrating salt, which, as soon as mixed with fluid of a contrary nature, tinges the whole mass, and that, too, according to the degree of heat those saline particles cause in the fluids that they affect. Sometimes black sores or boils break out on the skin, and these may be considered most efficacious in its purity. Some animals have their poisons so lodged with these salts as at once to cause heat and stop all motion as fast as they can spread over the neighboring parts, in the same form as a gangrene or mortification, until the person dies. Other animal poisons carry an extreme heat, and change the saline particles of the blood into an acid salt, which will corrode the muscular ligaments, and even the substance of the nerves, as a canker does, which we call the *throat distemper*, and can be properly taken as an example of poison. Sometimes this acid salt will so corrode as to destroy the part with great rapidity, as a cancer does, which is caused by poison generated in the blood.

The disorder called the hydrophobia, occasioned by the bite of a mad dog, or other animal so affected, results from a peculiar poison; for it will neither putrefy, gangrene, nor canker, but is infused by the saliva of the mad dog or animal. The wound will easily heal; yet, after some time, the poison will be communicated to the nervous system or fluids, and the person so bit will become mad, and soon die. All animals that bite in rage are poisonous. Nay, the sting of the bee, wasp, hornet, and the bills of gnats, mosquitoes, and many kinds of flies, when applied to the flesh, show their poisonous effects by the swelling and obstruction of the parts to which they are applied. From what has been said on animal poison, it appears that it becomes mortal, or occasions mortality, by causing heat and fever, as all other poisons do, and I think may teach us that the diseases of the body are produced by retarding

the fluids. If the acid salt in the animal poison will cause swelling, gangrene, and putrefaction, and corrode the musculary substance of the body with great heat and pain, I think that we may with propriety say, that cancers, cankers, and all those diseases which operate by destroying the solids, work by the same agent, viz., an acid salt. Cooling medicines must be administered, as the distemper shows itself only in the skin; yet, the salt being in the mass of blood, medicines must be given inwardly, to check and weaken those saline particles, that are working the utter destruction of the beautiful fabric of human nature.

The throat distemper, in New England, called a *canker in the throat*, lasted several years, and sometimes was very mortal. The most able physicians were puzzled both in the cure and cause of it, and it really seemed to me that their endeavors to cure the disorder only helped on the disease, and promoted the strides of death. I think there is not a doubt but that the disease was caused by some noxious quality of the air, which, like a poison, occasioned the more saline particles of the blood to become acid, and produce a reaction in the fluid parts of the body. The method of cure which was pursued at the time, was to give a vomit first, then apply diaphoretics and blisters. The vomit did no harm, but the blisters did; and often the eschar would not be healed, though the patient should live. The diaphoretics did neither good nor harm. Some gave cathartics, which evacuated the intestines, and caused the canker to proceed to the vitals or bowels, which occasioned death. Then, blindly, they took to giving bracers; that hardened the parts affected, and retarded the disease for a while. In this case, they gave cortex Peru.; but, this failing, although it kept the salt from preying upon the muscles by its astringent quality, then they attempted another method, which was, to give calomel and raise a salivation. This weakened and emptied out those acids that corroded the parts. Therefore it is a fact, that these salts, which are the basis of all diseases, are transmitted from their natural principle and substance, into an acid, corrosive salt, and thus destroy that which they were wont to maintain. This may be proved or tested by mixing a drop or two of spirit of vitriol or sulphur, which is loaded with acid salt, with milk; the vitriol will immediately coagulate it, and thus change it into two substances, viz., curd and whey; and these can never be translated into milk. Blood is of the same nature with milk, and a few drops of these before-mentioned acids will have the same effect on new-drawn blood; therefore I think it does not appear strange that poisons and diseases caused by acid salts should be incurable, when they turn the blood in curds and water, even as milk is changed.

All our fevers that occasion putrefaction are from this cause — an acid salt, which lentors and thickens the blood, so that an obstruction is raised and a fever is caused. These fevers, from this very cause, have been the principal fevers in New England, and, indeed, all over the Union, for many years; and since I have had an opportunity of observing the practice of many in treating these fevers, I do not wonder that so many have died. The patients are dosed off with hot medicines, which consequently heat the blood; then sour acids are given, which are filled with those salts that I have often named, as elixir of vitriol, spirit of nitre, or spirit of sulphur; these were given to perform a cure, as indeed they did, with a witness, viz., death.

I should not have proceeded thus far in explaining the nature of the acid salt, which acts as a poison on the human fluids, had it not been as a safeguard, for none to follow the steps of those who, by the agency of this poison, have destroyed many of the human race, instead of curing them. From what has been advanced on the subject, I think it appears both plain and reasonable that the juices are acted upon, in the manner stated, by the acid salts and poison, and that it needs no other evidence but a close application and diligent attention to the subjects themselves, when each one will see for himself, and not be led away by quacks, who continually practise "cum ignorantia medicinæ."

I shall close this treatise with a few general remarks, founded on the different temperaments in the human body.

In the human system there are four different temperaments, viz., the choleric, melancholic, phlegmatic, and sanguine. In choleric constitutions, the blood is hot and thin, and moves fast. In those of the melancholic, the blood is thick and heavy, and circulates slowly. In the phlegmatic, the blood is watery and slimy, and moves slow; but, in the sanguine, the blood circulates freely through the vessels of the body. The ventricles of the heart contract about four thousand times in an hour, according to the different ages and sexes. There are, as it is generally considered, about twenty-five pounds of blood

in a man's body, that is, taking the whole mass, which passes through the heart ten times in an hour, that is, once in six minutes.

Very much is to be considered, in judging of the state of one's system, about his temperament. It may not consist of any one of the four different temperaments, but may be a union of two or more. Besides, his generally prevailing temperament may be suddenly changed by the effect of disease that may be upon the system. When the circulation of the blood is quick, the temperament of the body is sanguine or choleric; when it is slow, then the temperament is phlegmatic or melancholy; when it is compact and firm, the constitution is equally strong; when lax and feeble, the constitution is weak and feeble; when bile or phlegm prevails in the fluids, the complexion corresponds with the humors, and is accordingly called *bilious* or *phlegmatic*. Thus, from the different stamina and mixture of the fluids in every individual, arises that peculiar disposition, why some kinds of food are hurtful to some, and not to others; why one thing will agree with a person at one time, and will cause serious difficulty at another.

CHILDREN'S DISEASES.

Children are very full of humors generally, and almost all their disorders proceed from one and the same cause — a sour acid, from which come sour belchings. There is nothing certain to be known from their pulse or urine, neither can they tell their feelings themselves; therefore observation must be taken of the symptoms that have continued longest — whether they vomit their milk in a coagulated state, seem to have any pain in the abdomen, hiccoughs, cough, the color of their stool, if they are thirsty and feverish, if their ears discharge as usual, &c.; as, all these things considered, a tolerably good judgment of the infant's case may be correctly formed. Sometimes their diseases are hereditary; they often take them from their nurse by the milk, or perhaps she spoils her milk by unwholesome food, or by drinking spirituous liquors. The practice of vaccination upon infants cannot be recommended or well admitted. Merc. dulc. two grains, mixed with flour of sulphur, Ethiops mineral, or rhubarb, may be used as a purge. Salt of vitriol is good as an emetic, but blood-root mixed with molasses is better; some give manna, but it is no better than the following, which are much easier to be obtained, viz., honey, sirup, elder flowers, peach blossoms, sirup of violets, bark of white ash roots, &c.; these, made into a tea, either single or conjoined, as it pleases, will operate sufficiently on infants. A purple efflorescence frequently comes on the skin in three or four days after the birth, but sometimes later. A little balm flowers or saffron, given in small quantities, is quite sufficient for this disease. It never requires any other remedy if administered faithfully.

Fevers attending Infants. — Children that have fevers in infancy are to be treated with such medicines as will remove the acidity from the stomach; for that is the fuel on which the fever feeds; therefore give rhubarb in the beginning, then diaphoretic antimony, or, if there be a stoppage at the stomach, give bloodroot, or some other gentle vomit. Blisters are not advisable; for they penetrate the pores, raise an inflammation, and often a strangury. If tumors arise in or about the neck or ears, or any part of the body, as is often the case in children, the cathartic must be omitted, and the sore brought to suppuration, while the evacuation will carry off the feverish ferment, and the child will recover.

Jaundice in Infants. — Some children have the jaundice as soon as they are born; others are born with it, and die in a few days. The symptoms are commonly yellow appearance of the skin, and dulness of vital action. It is certain to prduce death if not removed. The cure is easy and simple. Take the juice of ground ivy, mix with it any earthy substance, as soot, or millepedes, and give a tea-spoonful twice a day, soon after it is born; it is an infallible remedy, and no other medicine is needed.

Atrophy. — This is owing to the obstruction of the glands of the mesentery, which hinders the nourishment of the food from passing into the blood; hence their limbs become emaciated, their abdomen swells and grows hard. They have generally a diarrhœa or liquid stools; they are very voracious, yet their food does not seem to give them any nourishment; their limbs and joints grow weak and feeble, and sometimes they cannot stand alone at the age of two years or more. This is a dangerous disease, and generally ends in death. Young negro children are more subject to it than white ones, yet many white

children are affected with it. Old women and quacks call it the *rickets*, and give medicines accordingly; but it is very different from that disorder. It is cured in the same way as the consumption of adults. Only give, once in a while, rhubarb, while the diet and drink must be such as fresh broth, milk and water thickened with rice. For medicine, sarsaparilla and horseradish roots, steeped in wine, are best; sugar and sirnps are not so good, for they cloy the glands, and hinder the nourishment from passing into the blood; raisins, figs, apples, berries, and many other kinds of fruit, are very good, and may be used freely.

Convulsive or Whooping Cough. — This is a disease which returns once in a few years in this country, although the same child never has it but once. It is very tedious to be borne, for the child will cough until it is almost strangled; it will vomit the contents of the stomach, which will give a momentary relief. This cough proceeds from the stomach, as does the asthma. The cause is a viscid, acid matter, lodged on the coats of the stomach, or, what may be worse, a certain salt, communicated by the air, which coagulates the lymph; this, growing sharp and stagnating, overflows and affects the larynx, which causes the cough. The kind of cough seems to have a crisis, for it often continues six weeks, and is very hard to cure; and, in fact, it never leaves some constitutions, forever debilitating them until they yield to its effects. It is generally better to let Nature have her own course. It is frequently so malignant as to bring on other disorders. The cure, if one can be obtained, is to be begun by a vomit, as the stomach and strength of the child can bear. Bleeding, though it does not suit the constitution of children, yet it may be of great service; gentle purges, several times repeated, will serve to decrease the cough. But the most certain cure is, the powder of bloodroot, five grains, if the child be under six months; mix it with ten grains of the powder of snakeroot, and give the child this quantity for three days; then make a tea of lungwort, sweeten it with honey, give a spoonful three times a day, according to the age and strength of the child.

Epilepsy in Children. — This commonly ensues within the first month after the birth, or at the time of dentition. Sometimes worms cause epilepsy in children two or three years old; and sometimes it is occasioned by a fault in the milk, or by ulcers in the head. The symptoms are, stretching; suddenly starting; working the eyes and arms; keeping awake longer than usual; trembling and turning up of the eyes. These are true signs of epilepsy. For a cure, if the child nurse, let the mother drink a tea of sage every morning; then warm baths applied to the child's abdomen, and often changed, will always effect a remedy. This has been an approved medicine in many cases. Purging medicines may be used, as Ethiops mineral and mercury. Oil of sulphur is esteemed by some a specific remedy, and may be given in any cordial liquor.

Dentition. — This is attended with itching of the gums, fevers, convulsions, inflammations, starting in sleep, great flow of saliva, vomiting, purging, and is frequently the cause of death. A gentle purging is good; costiveness is a bad sign. If the child has not a plentiful flow of saliva, — for this is very useful to promote a gentle purge, — the nurse may wind a leaf of tobacco around her finger and rub its gums. A simple medicine is as good as the most costly. If there is danger of convulsions, spirits of hartshorn may be given, if costive. Ethiops mineral, or bloodroot, in fine powder, mixed with honey, is good, to be administered every other day.

Worms in Children. — If these come away in the common course, it is an unfavorable sign, for it indicates that something is malignant in the disorder, which disturbs them; yet change of diet often brings them away. The symptoms are itching of the nose, fretfulness in sleep, gnashing of the teeth when asleep, dry cough, great thirst, looseness, sleeping with the eyes open, with a very sudden changing of the countenance from extreme redness to a sickly pallor. A great abundance of medicines are usually recommended for a cure, but most of them fail of accomplishing the desired object. There is a kind of small worm situated very low in the intestinal canal, which is very prolific. These I have known to be removed, without an exception, by either of the following compounds, viz., an ounce of cloves, quarter of an ounce of myrrh, and a small quantity of wormwood, boiled in a pint of water, to a strong consistency; or, what may be better, the juice of wormwood, one gill, with the same quantity of aloes and myrrh, mixed with a pint of spirit: a spoonful given every other day for a few days will be sufficient.

Rachitis, or Rickets. — This disorder was not known to the ancients. It began about the sixth century, in Britain, and spread throughout Germany. It happens to children between the ages of six months and two years, seldom proves mortal of itself, but often degenerates into a consumption or dropsy. If it is not cured before it has lingered on the system so long as two or three years, the child will be unhealthy all its lifetime. The cause originates in an obstruction of the spinal marrow. The signs are, softness of the flesh, especially of the legs, crookedness of the legs, or of all the limbs, sluggishness in motion, laxity of the body, slow dentition, weakness of the limbs, and sometimes the bones grow to an unusual size. The cure is to be effected by warm, penetrating, deterging, and spicy medicines. The nurse should keep the child in motion while awake, though not to exercise it beyond what is reasonable. Exercise is the best part of the medicine, and is the cheapest. Rhubarb may be given once a week in small quantities, and beside that the safest, best, and surest medicine, is *bathing*, resorting to whatever amount of friction the constitution of the child can bear. A good nurse and a light or proper diet are more necessary than the most approved medicines.

Aphthæ, or Thrush. — This is nothing more than what is called a *sore mouth*. Sometimes it affects adults at the close of a fever. It is caused by an acidity, and must be cured by correcting it, then by healing medicines. Use a decoction of elm bark for a gargle, and a drink of goldthread will correct the humor to a great degree. Cutaneous eruptions on the hands and face of children are most generally for their health, but sometimes continue so long that a cure becomes necessary. Then the system must be purged with Ethiops mineral, or some preparation of antimony.

Venereal diseases in children are occasioned by sucking a diseased nurse, and are easily cured by using plentifully a drink of sarsaparilla root and sassafras bark, mixed with a little honey.

Circulation of the Blood, and its Consequences. — Every person talks familiarly of the circulation of the blood, and seems to be well acquainted with the subject. But, when it is thoroughly considered, it will appear one of the most stupendous works of Omnipotence. Though the life of the animal absolutely depends upon it, yet the greatest physicians and philosophers of antiquity knew it not. To England and modern times was reserved the glory of bringing this important secret to light. And even after the immortal Harvey published his discovery, with all the evidence of demonstration, it was a long time before the best anatomists of those days could be persuaded of its truth. So great was their attachment to the ancients, that they could hardly believe what their own eyes saw.

To form a distinct judgment of the mechanism and importance of the circulation, it will be necessary to describe the structure of the arteries, veins, and nerves, and take notice of some experiments made upon them. Then examine the cavities of the heart, by means of which the blood is propelled through the body; then proceed to observe the extensive use and benefit of this circulation to every branch of the animal economy; from all which it will be easy to deduce the congruity of the principal rules established by experience for the preservation of health.

The arteries are blood-vessels consisting of a close texture of strong, elastic fibres, woven in various webs, laid in different directions, and interspersed with an infinity of delicate nerves, veins, and minute arteries. They are divided and subdivided into numberless branches and ramifications, which grow smaller and smaller as they recede from the heart, until, at last, their extremities become much more slender than the hairs of our heads, called, therefore, *capillary* arteries, which are found either to unite, in continued pipes, with the beginning of the veins, or to terminate in small receptacles, from which the veins derive their origin.

The arteries have no valves, only where their trunks spring from the heart. They throb and beat perpetually while life remains; while their extremities differ in the thickness of their coats, and some other particulars, according to the nature of the parts which they pervade. All the arteries in the lungs, except the small ones that convey nourishment to them, originate from the great pulmonary artery, which issues from the right ventricle of the heart; and all the arteries in other parts of the body proceed from the aorta, whose trunk springs from the left ventricle of the heart. The veins resemble the arteries in their figure and distribution, but their cavities are larger, and their branches, perhaps, more numerous. Their coats are much weaker and slenderer than those of the arteries. They are furnished with several

valves, contrived in such a manner as to permit the blood to pass freely from the smaller into the larger branches, but to stop its retrogression. They neither throb nor beat. Their beginnings form continued ducts with the extremities of the arteries, or arise from some gland or receptacle where the arteries terminate. All the veins in the lungs, from their capillary beginnings, growing still larger, unite at last, and discharge their blood into the left ventricle of the heart; while all the veins in the rest of the body empty themselves, in like manner, into the vena cava, which opens into the right ventricle of the heart.

The nerves derive their origin from the brain or its appendage in several pairs, of a cylindric form, like so many skeins of thread within their respective sheaths, which in their progress decrease by endless divisions, until at last they spread themselves in a texture of filaments so slender and so closely interwoven with one another over the whole body, that the point of a needle can hardly be put upon any part or particle of it without touching the delicate branch of some nerve.

The learned Professor Harvey and others have made several experiments upon the vessels we have described, in order to demonstrate the circulation of the blood. For instance, it has been found by many trials, that, when an artery is laid bare and a ligature made upon it, if the artery be opened with a lancet between the ligature and the heart, the blood will rush out with great violence; and this rapid flow will continue, unless stopped by art, until, through loss of blood, the animal faints or dies. But if the same artery be opened between the ligature and the extremities, a few drops only will ooze out from the wounded coats of the artery. On the other hand, when a vein is laid bare, and a ligature put upon it, if that vein be opened between the ligature and the extremities, the blood will gush out, as we see in common venesection. But if we open the same vein between the binding and the heart, no blood will appear. From these experiments it is obvious to the slightest attention, that the blood flows from the heart, through the arteries, to the extreme parts of the body, and returns again through the veins to the heart. For the regular performance and continuation of this motion of the blood, called its *circulation*, through all the different parts of the body, nature has furnished the heart, which is the "*primum mobile*," with four distinct muscular cavities, viz.: with an auricle and ventricle on the right side, and an auricle and ventricle on the left. Through these cavities, curiously adapted to their respective offices, the blood circulates in the following order. It is received from the veins first, into the right auricle, which, contracting, expels the blood into the right ventricle until it is filled; this, in turn, contracts with great force, and impels the blood into the pulmonary artery, which, passing through the lungs, and returning by the pulmonary veins, is received into the left auricle of the heart, and thence it is forced into the left ventricle. The left ventricle, thus filled, contracts, and drives the blood, with great rapidity, to all parts of the body, where it is again collected, and returned by the veins into the right auricle of the heart, as before. It is very remarkable, that we have here a double circulation, one from the right ventricle through the lungs to the left auricle of the heart, in order to convert the chyle into blood, and finally prepare it for the nourishment of our bodies. The other is from the left ventricle through the whole body to the right auricle of the heart, which serves to apply that nourishment to every part, besides various other purposes. But to proceed. Of these four muscular cavities, the two auricles are contracted at the same instant, while the two ventricles are dilated; the ventricles, in their turn, are contracting themselves at the very instant that the auricles are dilated. The arteries, in like manner, beat in alternate time with the ventricles of the heart; that is, when the ventricles are contracted, the arteries are distended, and while the arteries are contracted, the ventricles are distended. The nerves, as well as the veins and arteries, act their part in this rotation of the blood; for, should any pair of the nerves that proceed from the brain to the heart be destroyed, the motion of the heart would immediately languish, and soon entirely cease.

Here we find a perpetual motion, which none but a Being of infinite wisdom and power could produce; and its continuation requires the constant aid of the same hand that first gave it existence. The brain transmits animal spirits to the heart, to give it a vigorous contraction. The heart, at the same moment, pushes the blood into the brain, to supply it with new spirits, by which means the head and the heart mutually support each other every moment. But this is not all: the action of the heart sends the blood and other vital humors over the whole body by the arteries, and distributes nourishment and vigor to every part, while the same refluent mass is conveyed back, through the veins, into the

heart, which enables it, without intermission, to continue in rolling this tide of life. If we now take a view of the use and importance of the circulation of the blood to the whole animal economy, we shall find it very extensive. Where this circulation is duly performed, man continues in good health; when it grows irregular, he sickens; and when it ceases, he dies: nay, if but one member is deprived of it, that member presently corrupts and mortifies.

But further, a moderate and calm circulation of the blood is necessary even towards the true and right government of our passions, and the true use of our reason. We know, by daily experience, that the influence of the mind upon the body with regard to health, of the body upon the mind with regard to the intellectual faculties, is very great.

Sudden terrors have killed some and distracted others; anger and grief impair health, cheerfulness and contentment promote it. Inflammations and other disorders of the brain suspend the right use of our reason. Many arguments induce us to believe that the nerves serve for sensation and muscular motion, and by means of these the mind carries on its correspondence with external objects. We know also that the nerves are supplied with spirits from the brain, and the brain with blood from the heart; from all which it is necessary for our healths, that the circulation be gentle and regular.

I shall conclude this article of the uses of the circulation by observing, that the same circulation which supports life so long, and preserves it in vigor, does at last, by a mechanical necessity, stop its own course. The stamina of the fibres, in a course of years, become rigid, and lose their spring; the larger ducts grow hard, and the small ones contract; at last, becoming impervious, the body is shrivelled, and the motion of the fluids first languishes, then ceases, which causes bring on old age and death.

The Muscular System.—Next to a healthy, proper circulation of the blood is the well-being of the muscular system. If any of the muscles are injured by accident or otherwise, it operates to the detriment of those parts adjacent. Any of the limbs may be distorted, and brought into an irregular position, either by the contraction or laxness of the nerves and muscles. These, so to speak, are the very keys and chords of the instrument which we play on when we exercise for pleasure or pursue our different avocations. It is by their action that the farmer cultivates his field, the mechanic wields his tools, and the author his pen, the sportsman pursues his game, the orator gives utterance to his thoughts, the lady sweeps the keys of the piano, and the young are whirled in the mazy dance. The muscles serve such an important part in our systems, that the manner of rendering them strong and healthy, as well as the common methods that injure them, and thereby jeopardize our health and beauty for life, cannot be too well understood.

In illustrating this subject, I think that no clearer views can be given than by quoting from an excellent work on physiology by Dr. Cutter, where he remarks as follows on the laws by which their action is governed, and the conditions upon which their health depends.

1. *The muscles should be used with alternate rest.*—It is a law of the system that the action and power of an organ are commensurate, to a certain extent, with the demand made upon it, and it is a law of nature that whenever a muscle is called into frequent use, its fibres increase in thickness within certain limits, and become capable of acting with greater force; while, on the contrary, the muscle that is little used, decreases in size and power. Hence every appendage to the dress of ladies which prevents free action of the muscles of the chest and spine, weakens the muscles thus restrained, and not only prevents a proper expansion of the lungs, but, by weakening the muscles which sustain the spine, induces curvature and disease. Whalebone, wood, steel, and every other unyielding substance, should be banished from the toilet as enemies of the human race. Compare the arm of the smith, who works at the anvil, with the limb that has been supported in a sling; the arm of one will be found large and firm, while that of the other is small and soft. In the one, the action of the vessels is energetic, in the other, sluggish.

Let the inactive boy and girl, or gentleman and lady, remember this, when complaining of want of strength, loss of appetite, depressed spirits,—when they are seeking some sovereign remedy for their complaints,—apparently unmindful that God, in his infinite benevolence, has adapted the bones and muscles to action. For sedentary persons, that kind of exercise is best which brings into action the greatest number of muscles. Hence, for school-girls, jumping the rope is an excellent exercise, especially if it can be practised in the open air; but this exercise cannot be

taken with safety, if the young girl persist in wearing the apparel tight around the lower part of the chest.

2d. *The muscles should not be compressed.* — Compression prevents the blood from passing to those parts with freedom; consequently they are not supplied with material to renovate them and promote their growth. Again, pressure stimulates the absorbents to action; by the increased activity of these vessels, the muscles are attenuated. In the case of a man with a fractured limb, the muscles are not only enfeebled by inaction, but diminished in size, by compression from the dressing. Limbs enfeebled in this way will not recover their size, tone, and strength, until the bandages have been removed, and a proper amount of exercise has been taken. The pressure of tight dresses, under the name of a "snug fit," enfeebles the muscles of the back, and is a common cause of projecting shoulders and curvatures of the spine.

3d. *Muscles should be abundantly supplied with pure blood.* — The following conditions are essential to this state of the blood, namely, a healthy state of the digestive organs, a proper quantity and quality of food, taken at due intervals, and when the system is in a condition to digest aliment. Purity of blood also requires attention to the skin. It should be kept warm by proper clothing, clean by bathing, and be acted upon by pure air and good light. As the blood is oxydated and divested of a portion of impurity in the lungs, they should have ample volume, possess good health, and be supplied with pure air. The movements of the ribs and diaphragm should be unrestricted.

In all instances, muscular power is greatest when the foregoing conditions exist; consequently, it is of practical importance to the laboring mechanic, the industrious agriculturist, the man of leisure, and not less to the ladies, whatever avocation of life they pursue, to observe them.

The attitude of children in standing or walking, has been much neglected, both by parents and teachers. Let the stooping posture be acquired in youth, and we are quite certain of seeing the stooping shoulder in old age. Hence the importance of duly exercising the muscles of the back; for when they are properly developed, the child can stand erect. In this attitude, the shoulders will be thrown back, and the chest will become broad and full, while his figure will be beautiful and commanding. But, on the contrary, let the youth acquire the habit of inclining his head and shoulders, and the chest will become contracted, the muscles of the back enfeebled, and the deformity thus acquired will progress to advanced age, if the very course does not spoil his constitution, and stop his career by premature death.

Every fibre of each muscle is connected with the brain by white cords, that pass from its base and the spinal cord. Through the agency of these cords, called *nerves*, the brain imparts to the muscles a nervous influence, that induces contraction or action in them. Consequently, the health, activity, and size of the brain, spinal cord, and nerves, modify muscular action. If the brain be healthy, muscular action will be more efficient than if it were diseased. This is illustrated by the muscular prostration observed in typhus fever, apoplexy, inflammation of the brain, and intoxication. The cessation of the action of the muscles, while the brain is inactive, illustrates the influence that the nervous system exerts upon muscular energy. If the spinal cord, or the nerves distributed to any set of muscles, be destroyed, their contractility and sensibility will cease. Compression of the nerves, in any member of the system, destroys or impairs its sensibility or movements. The want of sensibility, and the diminished strength of the lower limbs, sometimes experienced after sitting on a hard bench, are illustrations of the effects of compression of the nerves. In this instance, the sciatic nerve, dirtributed to the leg, is compressed.

Beneficial effects of an erect position in standing, walking, or sitting. — To maintain a muscle in a state of contraction, an influence is transmitted to it from the brain. The fewer the muscles in a state of tension, the less the draught on the nervous system, and the less its exhaustion. In an erect position, the trunk and head are balanced upon the bones and cartilages of the spinal column. If the body slightly incline forward, the muscles attached to the posterior side of the spine, by a gentle contraction, will bring it to the perpendicular, and even incline it backwards. This is immediately removed by a slight contraction of the muscles upon the anterior side of the spinal column. Consequently, in the erect position, there is a constant slight oscillation of the body backwards and forwards, like the movement of a pendulum; while, in the stooping posture, the muscles on the posterior side of the spinal column are kept in a state of continued tension and contraction, to prevent the body

from falling forwards. This enfeebles the muscles of the back, and exhausts the nervous energy, while the erect position favors their development and powers, as contraction alternates with relaxation.

The same principle applies to the position in sitting. Let a person incline forward, and the muscles upon the back are brought into a state of tension, which exhausts and enfeebles the nervous system in a greater degree than if the erect attitude was assumed. This disorganization of the nervous system impairs the whole plan of the healthy circulation of the blood and a proper digestion of our food.

When the muscles have been exhausted by severe and long-continued exercise, or the brain and nervous system by protracted mental effort, the muscles are unfitted to maintain the system erect in standing and sitting for a considerable time, as the nervous system, in its exhausted state, cannot supply a sufficient amount of its peculiar influence to maintain the supporting muscles of the body and head in a state of contraction. Hence, a child or adult, when exhausted, as above described, should not be compelled to stand or sit erect in one posture, but should be permitted to vary the position frequently, as this rests and recruits both the muscular and nervous system. Attention to this fact, and to the practice of bathing and applying friction to the limbs after violent exercise, particularly when an undue amount of unaccustomed exertion has been made, would prevent much of the stiffness and soreness so frequently experienced.

It has been observed among men of the same size, that a wide difference exists in their muscular strength and activity. This depends upon the size and number of the nerves, and the size and activity of the brain. Men having large nerves leading to the muscles, with the brain active, will perform feats of strength and agility that other men of the same size cannot effect. Rope-dancers, and other performers of feats, are persons thus constituted. Persons with small muscles and largely developed nervous systems, will sometimes exhibit very great muscular power for a time, but it will not be of long continuance, unless the brain is functionally diseased. Thus we cannot judge of the ability of a person to make exertions and continue them, by their stature alone. Strength and the power of endurance are the result of the combination of well-developed muscles, large nerves, and a full-sized, healthy, and active brain. And *this* is obtained only by proper attention to food, sleep, clothing, exercise — all in their form and amount adapted to a healthy growth of the whole animal economy.

Asphyxy by Drowning. — As cases of drowning are quite common, and frequently the body is so speedily recovered that life is not entirely extinct, and may be revived, if the proper means are resorted to in season, therefore it is very important that the community should be made acquainted with the proper mode of procedure in such cases. The following directions are given by one of the ablest men connected with the surgical profession in this country: —

"Immediately, as soon as the body is removed from the water, press the chest suddenly and forcibly, downward and backward, and instantly discontinue the pressure. Repeat this, without intermission, until a pair of common bellows can be procured. When obtained, introduce the nozzle well upon the base of the tongue. Surround the mouth with a towel or handkerchief, and close it. Direct a by-stander to press firmly upon the projecting part of the neck, called Adam's apple, and use the bellows actively. Then press upon the chest, to expel the air from the lungs, to imitate actual breathing. Continue this an hour, at least, unless signs of natural breathing come on. Wrap the body in warm blankets, and place it near the fire, and do every thing to preserve the natural warmth, as well as to impart artificial heat, if possible. Every thing, however, is secondary to inflating the lungs. Avoid all frictions until respiration shall in some degree be established."

Whenever a person has remained under water a quarter of an hour, there can be no hope of his recovery; the space of two or three minutes, in such a situation, being often sufficient to kill a man irrecoverably; nevertheless, as several circumstances may happen to have continued life, in such an unfortunate situation, beyond the ordinary term in which it would be natural to suppose it to exist, yet endeavors should always be made to afford them the most effectual relief, and not to give them up too soon as irrecoverable.

In addition to the directions quoted above, the following have been practised to a successful degree: A strong and healthy person should force his warm breath into the patient's lungs, and also the smoke of tobacco, by means of a pipe, funnel, or the like,

that may be introduced into the mouth. This air or fume, being forcibly blown in by stopping the sufferer's nostrils close, at the same time penetrates into the lungs, and there rarefies, by its heat, that air, which, blended with the water, composed the viscid spume or froth. Hence that air becomes disengaged from the water, and dilates the lungs, and if there still remains within any principle of life, the circulation is that instant renewed again.

Besides, the fume of tobacco should be thrown up, as speedily and plentifully as possible, into the intestines by the fundament. There are very commodious contrivances devised for this purpose, but as they are not common, it may be effected by many speedy means. One, by which I have known three lives to be preserved, consisted only in introducing the small tube of a tobacco pipe, with the bowl well lighted and wrapped in paper, which was perforated with several small holes, and through these the breath was strongly forced. In one of these cases, which was that of a small boy, at the first blast a considerable rumbling was heard in his belly; he then threw up a little water, and a moment afterwards came to his senses.

The strongest volatiles should be applied to the patient's nostrils; the powder of some strong, dry herb should be injected up his nose, as sage, rosemary, rue, or well-dried snuff; or even the smoke of these herbs is good; yet all these means are most properly employed after bleeding, which is to be done by opening the jugular vein, as it is generally the only vessel whence blood will issue under such circumstances. As soon as the patient is able to swallow, a little cordial, or warm brandy and water, should be cautiously administered. The too common practice of rolling a person laboring under asphyxy from drowning, on a barrel, in salt, or of suspending him by the feet, is not only useless, but inhuman, and should never be practised. Notwithstanding the patient may discover some tokens of life, we should not cease to continue our assistance, since he sometimes irrecoverably expires after these first appearances of recovery; and though he should finally be manifestly reanimated, there sometimes remains an oppression, a coughing, and feverishness, which effectually constitute a disease; it then becomes necessary to bleed in the arms. Administer to him barley water plentifully, or elder flower tea. Let the patient always be placed in pure air, and permit no more into the apartment than are absolutely necessary to render proper assistance.

Asphyxy from Gas or Charcoal. — "Carbonic acid gas is not only produced by burning charcoal, but is evolved from live coals from a wood fire, and, being heavier than the air, it settles on the floor of the room, and if there be no open window or door to take it off, will accumulate, and, rising above the head of an individual, cause asphyxy, like drowning in water." These misfortunes sometimes occur by some accident, but more usually by consummate carelessness, as it is hardly to be believed but that every one must know the effects of burning charcoal in a close apartment without a passage to conduct off the gas.

An individual laboring under partial or complete asphyxy from this cause, should be treated as follows: Place the body in the open air, and remove all the clothing, taking care that the position of the body be such that the head and shoulders be a little elevated. The face and chest should be sponged or sprinkled with cold water, or cold vinegar and water. Apply friction to the skin, with a rough towel, or flesh-brush, and resort to artificial respiration in all particulars, as directed in the case of drowning. All these measures should be resorted to promptly, and, if necessary, continued for several hours.

Asphyxy from Lightning. — The effect of electricity upon the system is such as instantly to cause an insensibility similar to that caused by carbonic acid gas; that is, a kind of suspension of the vital action. The treatment should be similar to that described in the two foregoing cases; but in nine cases out of ten, the application of cold water, *dashed* unsparingly over the whole body, will restore life, if it is in any manner possible.

Extraneous Bodies in the Ear. — "Peas, beans, tamarind stones, and numerous other extraneous bodies, may be introduced into the ear by children, and, if not extracted, cause much pain, swelling, and, perhaps, a formation of matter. If within sight, they may be generally extracted with a small pair of forceps or tweezers, or a double hair pin may be bent in a blunt hook at its bent end, so as to form a kind of scoop, and passed behind the substance, which in this way may be extracted. A stream of warm water, thrown in by means of a small syringe,

may sometimes prove successful, and in its return wash out, if it be small, the substance which has been introduced. Should the foreign body be a bean or pea, or any of the grains, water ought not to be used, as the moisture would cause it to swell, and it would afterwards be found much more difficult to extract it."

Worms and insects sometimes find their way into the ear, producing severe pain, and causing much terror to the patient. These can usually be driven out by the introduction of a little warm olive or almond oil.

Foreign Bodies in the Nostrils. — Foreign bodies are frequently introduced into the nostrils by children, causing irritation, and sometimes inflammation, if allowed to remain. They should, therefore, be removed as soon as possible. This can be done by blowing the nose, or giving something to cause sneezing; or we can resort to the use of the forceps, or blunt hook, as recommended in extracting bodies from the ear; or they may be pushed back into the throat. Care should be taken not to injure the bones or the lining membrane of the nostrils.

Extraneous Bodies in the Throat. — "These accidents are frequent, always alarming, and sometimes of fatal occurrence. It is an accident which requires immediate relief, or life may be lost. It is, therefore, very desirable that every one should know what to do in such a case.

"It is not necessary to ascertain which passage the foreign body is in when this accident takes place, for the immediate treatment ought to be the same. A by-stander should place one hand flat on the front of the chest of the sufferer, and with the other give two or three smart blows upon the back, allowing a few seconds to intervene between them. This will generally be successful, and cause the substance to be violently ejected. If the sufferer be a child, it should be taken between the knees of the operator, who should be seated on a chair, and the same proceedings practised."

Concussion of the Brain. — In injuries of the brain, the symptoms are usually alarming, and all should possess some knowledge for such contingencies. In general, such accidents are attended by insensibility; the skin and extremities are pale and cold; the pulse is very weak and feeble; and the circulation is much reduced in power; the respiration also is less deep, full, and complete, and is reduced in frequency.

Treatment. — In the first instance, the individual should be placed in pure air, and friction and dry warmth should be applied to the pallid and cold skin. This should be assiduously persevered in, until heat and color are restored to the skin and limbs, and due action of the heart and arteries has been established. Mild stimulants may also be used internally with advantage. There should be no bleeding until the skin and extremities become warm. I have known some cases, where young persons have had their skull pressed upon the brain, so as to suspend the action of the intellectual faculties, who have entirely recovered. The skull, in youth, is elastic, and will return to its original shape after being compressed.

POISONS

AND THEIR ANTIDOTES.

The cases of poisoning are so frequent, either from accident or design, that the course of procedure should be familiar to every one, and the more especially, as the effect of most poisons can be counteracted, if the antidote is known, and administered in proper season. All mineral acids, that, when taken into the stomach, will speedily cause death, are rendered neutral by certain liquids known by experiment.

"The first thing to be done, when it is ascertained that a poison has been swallowed, is, to evacuate the stomach; unless vomiting takes place spontaneously. Emetics of the sulphate of zinc, (white vitriol,) or ipecacuanha, (ipecac,) or the wine of antimony, should be given. When vomiting has commenced, it should be aided by large and frequent draughts of the following drinks: flaxseed tea, gum water, slippery elm tea, barley water, sugar and water, or any thing of a mucilaginous or diluent character."

Poisons are divided into two classes — *mineral* poisons, including the acids, and *vegetable* poisons.

Copper. — The most common cause of poisoning from this metal, is through the careless use of cooking utensils made of it, on which the acetate of copper (verdigris) has formed. When this is known to have been taken, immediately induce vomiting, give

mucilaginous teas, or, what I have known to be still better, the white of eggs, diffused in water. The antidote is carbonate of soda, which should be administered without delay.

Mercury. — The preparation of this mineral by which poisoning is commonly produced, is corrosive sublimate. The mode of treatment to be pursued, when this poison has been swallowed, is as follows: The whites of a dozen eggs should be beaten in two quarts of cold water, and a tumblerful given every two minutes, to cause vomiting. When the whites of eggs are not to be obtained, soap and water should be mixed with wheat flour, and given in copious draughts, and the stomach pump introduced as soon as possible. Emetics of irritating substances ought not to be given.

Arsenic. — When this has been taken, administer an emetic of ipecac, speedily, in mucilaginous drinks, and use the stomach pump as soon as possible. The antidote is hydrated peroxide of iron, which, during these days of poisoning, should be constantly kept on hand in all neighborhoods, and certainly at all apothecaries' shops. It may be given in any quantities, without danger or injurious results.

Nitric, Muriatic, or Sulphuric Acids, known under the common names of *aquafortis*, *marine acid*, and *oil of vitriol*, may be taken by accident, and produce poisonous effects. The antidote is calcined magnesia, which should be freely administered, to neutralize the acid and cause vomiting. When magnesia cannot be obtained, the carbonate of soda, or potash, may be given. Chalk, powdered, and given in solution, or strong soap suds, will answer a good purpose when the others are not at hand. It is of very great importance that something be given speedily, to neutralize the acid. Magnesia, if obtained, should be given freely, in diluent and mucilaginous drinks, as gum-water, milk, flaxseed, or slippery elm tea. Emetics should be avoided, as they irritate the stomach.

Nitre — Saltpetre. — This, in over-doses, produces very violent poisonous symptoms. Vomiting should be immediately induced by bloodroot, in large portions of mucilaginous diluent drinks; but mineral emetics, which irritate the stomach, should be avoided.

Zinc. — Poison is sometimes caused by the sulphate of zinc, (white vitriol.) In this case, vomiting also should be induced, and aided by large draughts of such drinks as before mentioned; the stomach pump should immediately be used. The antidote is the carbonate or supercarbonate of soda.

Lead. — The acetate (sugar) of lead is the preparation of this metal which is liable to be taken accidentally in poisonous doses. Induce immediate vomiting, by emetics and diluent drinks. The antidote is diluted sulphuric acid. When this acid is not to be obtained, either the sulphate of magnesia (epsom salts) or the sulphate of soda (glauber's salts) will answer every purpose. They should be given in weak solution.

Ammonia. — The water of ammonia, if taken in large quantities and in an undiluted state, acts as a violent corrosive poison. The best and most effectual antidote is *vinegar*. It should be administered in water, without delay. It neutralizes the ammonia, and renders it inactive. Emetics are not to be used at all.

Antimony. — The wine of antimony and tartar emetic, if taken in over-doses, cause distressing vomiting. In addition to the diluent mucilaginous drinks, give a teaspoonful of the sirup of poppies, paregoric, or twenty drops of laudanum, every twenty minutes, until five or six doses have been taken, or the vomiting ceases. The antidotes are nut-galls and oak bark, which may be administered in infusions.

Oxalic Acid. — This acid resembles the sulphate of magnesia, (epsom salts,) which renders it liable to be taken in poisonous doses, instead of *that*, by mistake. Many accidents have occurred from this circumstance. They can easily be distinguished by tasting a small quantity. The epsom salts, when applied to the tongue, have a very bitter taste, while the oxalic acid is intensely sour. The antidote is magnesia, between which and the acid a chemical action takes place, producing the oxalate of magnesia, which is inert. When magnesia cannot be obtained in season, chalk, lime, carbonate of soda, or carbonate of potash, (salæratus,) will answer as a good substitute. Give the antidote in some of the mucilaginous drinks before named.

Ley. — The ley obtained by the leaching of ashes, may be taken by a child accidentally. The antidote is vinegar, or oil of any kind. The vinegar neutralizes the alkali, by uniting with it, forming the acetate of potash. The oil unites with the alkali, and forms soap, which is less caustic than the ley. Give, as in other cases, large draughts of macilaginous drinks, as flaxseed tea, gum-water, &c.

DESCRIPTION OF MEDICINES,

VEGETABLE AND MINERAL.

Sarsaparilla. — This is an American plant, and is truly worthy of being placed at the head of materia medica: the root only is used. There are two kinds of this plant, called the *male* and *female:* these also go by divers names, but the male root is accounted better for medicinal purposes. No other drink can be better as a sweetener of the blood in the spring of the year, or after it has been injured by different diseases, as fever, pox, consumption of any kind: it helps greatly to correct the general tone of the system. A tea from this root should be used in diet-drinks: it will prevent faintness at the stomach, and is likewise good to remove colic and wind in the abdomen, occasioned by drinking cold water or eating food hard to digest.

Flower-de-Luce. — Of this there are two kinds. One grows in gardens, and is indigenous to Europe. The root of this is an alterative, and good for convulsions in children. The other grows spontaneously all over America, and is known under the name of *blue flag*. The juice of the roots of this is in use, and obtained by beating them in a mortar, then pressing; two spoonfuls of which, mixed with molasses, are a sufficient cathartic for any person. It is the best purge known in nature in all diseases whatever, and will frequently prevent fits, convulsions, colics, epilepsies, and hinder diseased particles in the blood from lodging on the glands; besides, when given in cases of cold, rheumatism, or gout, it heats the bowels, and draws out of the limbs those cold rheums, and carries them off; it is nauseous, and hard to keep down, and to children sometimes *rough;* yet it does them no harm.

For weak people, who cannot bear strong physic, take a quantity of the juice, put it in earthen dishes, and set it in the sun, and in a few days it will dry away and leave a gum, which will operate very gently, being mixed with molasses. The dose is two drachms for an adult, and a less quantity for a child. This medicine, as a cathartic, for the cholera, — a disease that has been so fatal in our large towns and cities, — is the secret to the success of certain physicians in its cure.

N. B. This root is entirely spoiled if heated or boiled.

Sage. — This is a well-known plant in our gardens, and is used for a sweat in almost all fevers. It thins the juices, and gives liberty to all the fluids. It is good in nervous complaints, apoplexy, palsy, &c.

Mallows. — Of these there is another kind, called the *marsh-mallows*, of the genus althæa; but they are both of the same nature, and good for all hot and sharp rheums, as dysentery, particularly when it has assumed a state of high inflammation; it mitigates the pain in the pleurisy and bilious colic by relaxing and softening the fibres, and causing a slimy mucus to displace those sharp humors, that corrode the fluids.

Feverbush. — This is sometimes called *gingerbush*, from its spicy taste. It grows in low, moist lands, and is ever known as a purifier of the blood, and is good used with sassafras and sarsaparilla in all cases to cleanse the blood after surfeits, pimples, scabs, boils, &c.

Calamus, or Sweet Flag. — This grows in meadows, and is well known; is a good root in almost all cold diseases arising from flatulencies and wind-vapors in the bowels and stomach, and is a laxative given in powder with honey; but is best used by distilling in water in the following manner: by mixing one gallon of the hot liquid, after being distilled from the root, with the same quantity of rum or brandy. This is a noble medicine, taken every morning, for all complaints arising from colds and flatulencies, and is very good in all inactive, feeble constitutions, when the patient is *dead and lifeless*. I have known many dyspeptic, sluggish young men and women, who have taken this medicine two or three times a day, to be radically cured, while their pale countenances would become flush and ruddy. It is also good for children that have the rickets, mixed with horseradish.

Juniper Berries. — These are brought to us chiefly from the eastern continent, and are from the red cedar. Some grow very large and fair, but generally they are small, and grow on dry land and ledges; but all are of the same nature, and used in cases of the jaundice, with bitters, as warming to the stomach. They are likewise very forcing upon the womb, and will promote the menstrual discharge, but should not be given to a woman in travail. The branches of the tree are more violent than the berries, and, if given to a woman when pregnant, will cause abortion.

Rue. — This grows in gardens, and needs no description; is good in all hysteric affections, an excellent bitter for the stomach, and promotes the menses gently. It is a strengthener of the blood, and good in cases of poisoning; therefore useful in all fevers and nervous complaints.

Cancer Root. — This grows under beech-trees, and never lives over winter; neither does it bear any leaf. It is very drying and astringent, and excellent for old, foul ulcers. If taken inwardly by those who have cancers, ulcers, and breaking out on the skin, it will cleanse and heal them. It is also equally good for a wash for ulcerated sores.

English Rhubarb. — This is a round-leafed dock, growing in gardens, first brought from England, and is of the same nature as the Turkish rhubarb, but only a quarter as strong. It is an excellent purge, especially for children. It should be taken in a powder with molasses; a large spoonful is a sufficient portion for an adult, but for a child less will answer. It should be dried for a year before use, and the longer it is kept after that, the better it grows. It is the only purge in the dysentery or diarrhœa, where a cathartic is necessary or useful.

Mustard Seed. — There are two sorts of this — white and black. The black is the better, and grows in abundance on most of our farms. When taken, it stimulates and shakes the nervous system, giving it a healthy influence in all nervous disorders, as palsy and epilepsy. It is diaphoretic, causes sweat, and is much used in fevers when the nerves are affected. When mixed with rye paste, or white pine turpentine, it will draw blisters.

Flaxseed. — This is of a soft, slimy, balsamic nature; therefore is good used in coughs and tickling rheums, and is often administered in consumptions, asthmas, and other disorders of the lungs.

Bloodroot. — This grows chiefly on intervals, and is a very powerful attenuant. It is quite nauseous, and cannot be kept in the stomach if taken in water; but given in spirit, it is immediately infused all over the system. If administered for a vomit to children, give it in molasses; it is the best emetic that can be given to them, as too much cannot be given, for it will all come up at two or three throws. But its use is very beneficial in the jaundice, scurvy, and dropsy; but, above all things, it excels in the fevers that of late have prevailed in the New England and Middle States, which come on slowly, occasioned by a lentor or thickness of the blood. In these fevers, physicians generally, instead of attenuating the blood, give sour acids and strong cathartics, which serve only to wear out their patients; but bloodroot, as much as will lie on a ten cent piece, mixed with as much again of white snakeroot, as a corrector, taken six or seven times in a day, has never failed of a perfect and complete cure. I have never lost a patient in all my life, to whom I administered the above medicine before the juices began to putrefy, while others, with their abundance of medicines, kill more than they cure.

Hemp Seed. — This is good to open obstructions in the liver and spleen, — is used in the jaundice, hypochondriac and hysteric affections, given in brandy or infused in cider.

Burdock Root. — This is used to correct the bile and flatulencies of the bowels. The seeds are steeped with water, for infants, in flatulent cases.

Anise, Caraway, and Fennel Seeds. — These are all warming; used in flatulent cases, and infused with senna, for physic, to correct and prevent griping in the bowels and sharp purges.

Turpentine, and Balsam of Fir. — These are detergent, scour the glands, correct and heal by their warm nature; they are diuretic, but should not be given in a strangury, by reason of their heat. The balsam of fir is best given inwardly, while the other is the best in salves and oint-

ments, and strengthening plasters, in which it is commonly used.

Sweet Balm Flowers. — These are better than any others for cordial; are excellent for faintness, or any decay at the stomach, infused in wine or brandy.

Saffron. — This flower loses its strength in drying; is aperient and sudorific; has a great effect on the nerves; it is good in hysteric and hypochondriac affections, as also all nervous affections. Five grains are sufficient for a dose.

Tansy. — This is good only in infusion, for the oil has so great force that it will cause convulsive fits. The seeds, however, are good for worms.

Elder. — This bush bears berries; that which produces black berries is not so strong as that which bears red berries, but both are cooling and purging, as well the root and the bark as the berry. All elders are good in the dropsy and strangury, and other hot rheums.

Poppy Flowers. — These are anodyne — are used in sirups to ease pain. The Turkish opium is made of the juice of wild poppies, boiled to a hard consistence; the juice of our poppies will make opium. This medicine, though good to ease pain, is very bad in some cases; as, when expectoration is wanting, it will prevent a cough, and stop phlegm from rising; therefore one must be cautious in using it in all cases, for no person can bear more than a grain or two at a dose. One tea-spoonful in sirup is a potion.

Lavender. — This grows in gardens, and is a very grateful cordial plant, of a sweet smell, and used in infusions in spirits of wine or brandy.

Marigold. — Of this there are two kinds — the French and common marigold. It is apparently of the nature of saffron, but much less degree of strength. The French kind is much the stronger, is gently aperient, and a good hot herb.

Pennyroyal. — This is a wild, warm herb, but may be cultivated. It is used in hysteric affections, and helps to promote the menstrual discharges, by thinning and warming the blood; is also used in the hypochondria, slow fever, and intermittent fever. It affords a hot oil by distillation, which is good, with camphor, to anoint the limbs of those affected with St. Vitus's dance.

Mullein. — This is cooling and diuretic; is used for strangury.

Dock. — Of this genus of plants there are several kinds. They are of the nature of rhubarb, and, when used as a cathartic, will leave the bowels somewhat costive. The small dock is extremely astringent, while the low and large docks operate gently, and are not astringent. The burdock is very bitter, and good for worms in children. It is the best of the dock kind. The root, steeped in cider, or taken in molasses, is a superior medicine in the jaundice, and better for flatulent infants than anise seed. These docks are good in all fluxes, &c.

Hemlock, Herb and Root. — This imitates parsley, grows near the salt water, and is a narcotic poison stronger than poppies; not safe to give inwardly, but should be used outwardly, in palsy, old sores and ulcers, which are hot and parched. This herb will keep back cancers a long time; and hot diseases may be thus treated with it, there being no danger of scattering them into the blood.

Lady's Slipper, called *Cocoa Flowers.* — This grows wild, and has a leaf like meadow plantain, and a flesh-colored flower, only one upon a stalk. This has so much power, that, if given internally, it will stop the operation of an emetic, and immediately prevent that vomiting which sometimes attacks women in hypochondria, and while in travail. It is used in salt rheums with great success. Half a tea-spoonful is a dose.

Garlic, or Onion. — This is well known as a diuretic; will thicken the juices, and draw disorders to the parts where it is applied, as a loadstone does iron; therefore is good to be applied to the feet, or sometimes under the arms, in disorders of the lungs.

Meadow Sweet. — This grows wild in the valleys of the Connecticut and Merrimack Rivers; looks like burnet, though much larger, and is used in consumptions and all diseases of the lungs. It is very cleansing and healing to fresh wounds: only steeped and applied, it will heal a wound without salve or ointment; therefore it is an

excellent ingredient in all descriptions of salve.

Liquorice. — This aperient and detergent helps expectoration from the lungs, and is much used in coughs.

Horehound. — This bitter herb grows in gardens. It is much used in candies to prevent a tickling cough, and compounded in sirups and diet-drinks for consumption.

Wild Pink. — This grows in swamps, on bushes like blueberry bushes. It is glutinous, and has a sweet taste; makes a beautiful conserve, is very cordial, and good for diseases of the lungs, and faintness of the stomach.

Pepper, Pods and Seeds. — The pods are red when mature, are extremely pungent, and used in palsies and lethargies; are attenuating and good in divers medicines for cold constitutions; are also diuretic, and give warmth to the whole body.

Lungwort. — This grows on various trees, like moss. That which grows on white oak is accounted best by some, while that obtained from the rock-maple tree is thought by others to be equally as efficient. It is to be used in infusion, is an excellent bitter, and a powerful strengthener of the stomach. It should be used plentifully in all sirups. I could refer to hundreds of cases, in which coughs generated by exposures, but more particularly that *hacking* cough which lingers around those who have had the measles, have yielded to this medicine, and been radically remedied, while they withstood all other pharmacy.

Ginseng, Root and Branch. — At one time, this plant was in such esteem in China as to be prohibited by government from being exported. It has been supposed to contain the virtue of all other plants. The root is detergent, and of the nature of liquorice; therefore is much used in asthmas, pleurisy, coughs, and all foulness of the lungs. The branch is not so detergent, but makes a tea much preferable to any bohea or green tea. This is found on all hemlock lands in North America, and is an article of export from this country to China.

Snakeroot, Yellow, White, and Black. — These grow all over America, and are considerably plenty. The yellow is produced in Virginia; the white grows in the New England States, in meadows; and the black on intervals. All have a leaf alike, only larger one from the other. The Virginia root is smallest, and given in fevers, to obtain a sweat, and is also good in cases of poisoning. Of all sorts, the white is the best, which grows in the Northern States, is attenuant and sudorific, more than the Virginia root. The black is the rankest, and has the most spicy taste, but not so saccharine. All are antidotes against putrefaction of the blood, therefore good in all fevers.

Elecampane. — This is excellent in sirups, and is very lithontriptic. Half a tea-spoonful is a sufficient dose.

Ivy. — This is a restorative in sirups; but the distilled water is useless, for the virtue of the plant will not rise in distillation. It is good in many cases, as mentioned in these pages.

Hackmatack Balsam. — This is like rosin, and issues from the tree when it is bruised and wounded; is used in all internal ulcerations, but is of singular service in the various disorders usually attending females. Half a tea-spoonful is a dose.

Indigenous Plants. — The following are excellent plants in the materia medica, and should be administered in many diseases, instead of medicines less effective in removing the cause of the complaints, and often liable to injure the patient: marjoram, horsemint, spearmint, (which is very useful to stop vomiting, by taking two or three drops on sugar,) motherwort, yarrow, pumpkin seeds, (which are very diuretic,) chamomile, comfrey root, wormwood, and many others, the use of which is commonly known.

Antimony. — It is used in powder, with one half sulphur; take as much as will lie on a ten cent piece, in half a spoonful of molasses. It will operate on an adult, and carry off the slimy foulness of the intestines. It is used in cases when other purges will not answer. A dose is four grains, without the sulphur.

Opium. — This is the juice of the Turkey poppies; is anodyne, and used to ease pain. Laudanum is only opium dissolved in spirit. It may be called the *tincture* of opium. It should be used with great care and caution.

In whatever form it is administered, there ought not to be more than a grain and a half given in four hours, and seldom so often.

Galbanum. — This is the gum of a tree in the East Indies; is used in hysteric fits, and applied to the navel in disorders of the womb and weakness of its parts.

Aloes. — Of these there are two kinds — Socotrine and hepatic. The Socotrine aloes are good as a cathartic, either alone or in pills, or mixed with other gums and powders. Taken in spirit, they are a warm physic, but very injurious in the hemorrhoids or piles. All the patent pills that have flooded the country for a few years past, are made of aloes, united with some of the vegetable juices, which we have enumerated here.

Asafœtida. — This is a fetid gum from the East Indies, and is used in divers forms, to damp the spirits or nervous juices, in hysteric fits and uterine furor; but it is truly a superior medicine in cases of insanity and disordered imagination occasioned by masturbation, the most *diabolical* custom to which young persons can be addicted.

Myrrh. — This gum is often mixed with pills; is an alterative, and often made into liniments to prevent sores from gangrening. It is very good for cleansing and healing internally.

Mercury. — There is a preparation called *mercurius dulcis*, which is a noted medicine for worms in children. Three or four grains mixed with flour of sulphur and given in molasses are not dangerous, for the sulphur will prevent the mercury from injuring the glands. Once a day is often enough to give it.

Calomel. — This is a strong preparation of mercury, and is used in salivations. Four or five grains in conserve of red roses will salivate; but in difficult cases, six or seven grains may be given, with as much diaphoretic antimony mixed, every day until a spitting is raised. It should be used with the greatest caution.

Roman or Blue Vitriol. — It is not given internally, but is used externally to corrode proud flesh or fungus, and to wash foul ulcers. Dissolved in water, it is good to scatter the inflammation of sore eyes.

Camphor. — This is the gum of a tree in the East Indies; is a powerful diaphoretic, and so penetrating that it is infused all over the body as soon as the warmth of the stomach sets it in motion. It should be kept in readiness, dissolved in spirit, to wash swelled and bruised limbs, as well as tumors.

Sulphur. — It is given to stop a salivation; is attenuant and good in most of ointments. There is nothing in the whole list of medicines that is better to give a healthy tone to the blood, than sulphur taken now and then in molasses with spirit; besides, it prevents the taking of epidemics, or, to say the least, prepares the system to overcome them without injury.

Turbith Mineral. — This is made at the furnace of mercury, and is a vomit; it is given to adults in doses from two to six grains; it sometimes causes a salivation.

Ethiops Mineral. — This is mercury and sulphur ground together, and will not salivate. It is a noble medicine for worms, as has been remarked. It may be given in doses of six or eight grains to adults every day, in scrofula cases, and all disorders occasioned by *debauchery*.

Native Cinnabar. — This is a mineral substance, viz., red sulphuret of mercury, and should be powdered very finely when given. It stops the smallest strumus, and all manner of obstructions of the glands.

Elixir Proprietatis. — This is made of myrrh, aloes, and saffron in spirit of wine, the most common drops in our shops; is used for the jaundice and faintness at the stomach. Twenty-five drops are a common dose.

Glauber Salts. — These are given for a cathartic, and are better than epsom salts. An ounce is a potion for an adult with a robust constitution, but generally about half an ounce at a time.

Tartar Emetic. — It is the common cathartic of the shops, operates harshly, and is not to be given to children. The dose for adults is from four to six grains, or less may be given at different times.

Salt of Vitriol. — This is to children a vomit, and will operate as soon as it is swallowed, like bloodroot, but is not so good. A dose is six or seven grains.

Tincture of Hops. — This may be obtained by macerating hops in diluted alcohol, or rum, for ten or twelve days, then filtering. This tincture is tonic and narcotic. The condition of disease to which it seems to be admirably adapted, is the wakefulness, attended with tremors and general nervous derangement, to which habitual drunkards are subject, and which frequently precedes an attack of delirium tremens. The dose is from one to two spoonfuls.

Pills. — Of these we can mention but few of the numerous kinds, bearing names as different as their ingredients. Pills are a convenient medicine, and can be made by any one, who will take the time and trouble to prepare them. All that is required, is to have some fluid or resinous substance, so as to mix or unite the article or articles of which the pills are to be formed; then they may be divided into their proper size.

Aloetic Pills. — Take of aloes and Castile soap each an ounce, beat them with water so as to form a mass, then divide it into two hundred and forty pills. The soap not only serves to impart a proper consistence to the aloes, but qualifies its operation, and diminishes its liability to irritate the rectum.

Asafœtida Pills. — Take of asafœtida one and a half ounces, soap half an ounce, beat them in water so as to form a mass, then divide into two hundred and forty pills. They are a very convenient form for administering asafœtida, the unpleasant odor and taste of which render it very offensive in the liquid state.

Pills of Iron. — Take of myrrh two drachms; carbonate of soda, sulphuret of iron, each a drachm; sirup, a sufficient quantity; beat them in a mass, to be divided into eighty pills. "They are considered particularly good in the chlorosis, whites, and other female complaints, and appear to act favorably by increasing the coloring matter of the blood, causing the capillary system to be more full, and the lips to assume a redder color."

Pills of Rhubarb. — Take of rhubarb six drachms, soap two drachms; beat them in water so as to form a mass, to be divided into one hundred and twenty pills. Rhubarb is so common a medicine that the pilular form is convenient; as all pills can be preserved for any length of time, if kept from the air in glass bottles.

Chloride of Lime. — This, externally applied, is a disinfectant, and has been used with advantage in solution as an application to ill-conditioned ulcers, burns, chilblains, and cutaneous eruptions; as a gargle in putrid sore throat; and as a wash for the mouth to disinfect the breath; and for ulcerated gums. Internally, it is a stimulant and astringent. I have cured two cases of what is commonly called the *scald head*, by the frequent application of chloride lime alone; it destroyed the viscid humors, and effected a cure in two months.

Conserves. — These consist of recent vegetable substances and refined sugar beat into a uniform mass. For example, take of red roses (fresh) *a pound*, sugar *three pounds*; beat the roses in a mortar, then add the sugar, and beat again until they are incorporated. This conserve is slightly astringent, but is almost exclusively used in the manufacture of pills, to give them consistency.

Borax. — This is cooling and diuretic. It also exercises great influence over the uterus, promoting menstruation, facilitating parturition, and aiding the expulsion of the placenta. When given for female complaints, it should be mixed with flaxseed, in the proportion of nine grains of the former to a large spoonful of the latter. A solution formed by dissolving borax in distilled vinegar has been found, by eminent physicians, to be an excellent lotion for ringworm of the scalp. It is also very good as a detergent in the aphthous affections of the mouth in children.

Iron Rust and Filings of Steel. — These are astringent, are used to quicken the blood. The former will prevent, while the latter will promote the flow of the menses. These are good in fevers, and in all chalybeates.

Ens. Veneris. — This is a mineral substance prepared at the furnace, and is chiefly used in the obstructions of the menses. It is better than any other preparation of iron or steel.

Verdigris. — This is the acetate of copper; is not used internally, but externally, in ointments to cleanse old sores. It is a good ingredient.

Alum. — It should not be much used, only for sore mouths, and to moisten other medicines.

Ipecacuanha. — This comes from South America, and is in great esteem as an emetic and cathartic. It is generally rather too astringent to be given in diarrhœa or dysentery, yet it often operates beneficially. Its dose to adults is from ten grains to one scruple.

Oil of Turpentine. — This is much used, is very hot, detergent, and diuretic; is good for the gravel, strengthening the parts. Eight or ten drops at a time are generally sufficient, as giving too much at a time will rather weaken than strengthen. It is also good in ointments and plasters; to anoint a limb which is broken or bruised.

Amygdaline Oil. — This is the oil of almonds, and often it is the very best medicine to use in coughs and all disorders of the lungs, in consumptions, ulcers, &c. The dose is five or six drops.

Balsam of Peru. — This is good, used in the same diseases as the above.

Oil of Vitriol. — This is not good for inward use, but, being diluted with water and used as strong as it can be borne, is a good wash for a finger that has a felon or whitlow, as soon as it begins to come, as it will entirely stop it, and prevent its progress. It is also good for a wash to foul ulcers and sores, and will effectually cleanse them.

These are but a few of the simple medicines now in common use by practitioners; but they are such as I can safely recommend to the public, and are all that may ever be needed for general *Family Medicines*. They should be administered with proper precautions, and, if compounded, in *due* proportions. The general idea prevails, that if a *little* medicine affects us beneficially, a *greater* quantity will certainly cure; but this is erroneous in two particulars, viz.: medicine must have time to operate upon the system; therefore, if too much is given, it will *create* a disease, instead of effecting a *remedy*. Medicine taken too much and too often, although it seems to remove the disease for a few hours or days, becomes at last poisonous to the blood and animal fluids. This is witnessed in the *wholesale* way that some swallow down patented pills at every *little nausea or gripe* in the stomach and bowels. It is indeed believed by many, that life would soon cease without a dozen or more of those *grapes* taken daily. The convenience of this form of medicine is its greatest objection. Likewise, the different kinds of spirits, tea, coffee, and even opium, although excellent medicines, cease to be such to that person who makes habitual use of them.

Beer. — "Malt liquors waste the powers of life, keep up constant fever, exhaust the spirits, inflame the blood, cause headache and premature old age, and, drank frequently and to excess, expose the body to numberless diseases." They particularly disagree with persons of bilious temperaments, and those subject to flatulency, coughs, and inflammatory diseases. In cases, however, of great debility, where a stimulus is required, they may be given with success, particularly in the form of porter. This article is very strengthening to females debilitated by pregnancy or nursing.

Spruce Beer. — This is a very cooling and pleasant beverage, which may be freely drank. It must be made, not of sirup of spruce, which is now customary, but with a decoction of the leaves, by which the flavor and qualities are rendered altogether different and much improved.

Root Beer. — This may be made of various plants, that are indigenous to all parts of our country, and is excellent as a beverage during the spring and summer months. It removes the humors from the blood, produces a good appetite, helps digestion, and gives a healthy tone to the system generally. The following receipt I have found to be good, viz.: Take sassafras-root, burdock-root, wild-cherry tree, bark of the root, root of black elder, and feverbush; boil them together, then filter. Afterwards add honey, or molasses, when it will ferment as usual. A little ginger and hops are a good addition to the above.

Bitters. — These are easily made, and nature furnishes abundance of plants, that, either alone or compounded, will afford purifying qualities to the blood. The following is an excellent receipt for bitters: Take two spoonfuls of snakeroot, two of blood-root, two of white lily-root, one of ginseng-root, six of the inside bark of the cherry-tree, eight of elder bark, two of cinnamon, one of

cloves, and two of barley. Mix these ingredients well, and one glass full for a paper, which may be put into a bottle with a half pint of water to infuse for twelve hours, then add one quart of spirit. Any other composition of these ingredients will make good bitters, which no family should be without. Wormwood and tansy, separate or together, make a good bitter, which should be taken now and then during all seasons of the year. Those who attenuate their blood by suitable bitters, seldom are under the necessity of phlebotomy, which is an unfortunate necessity for any one to resort to at stated periods.

Cure for a weak Stomach and Cough. — Take two ounces of gum mastic, two ounces of spermaceti, melt them over a slow fire, then put in two pounds of brown sugar by degrees, and stir it until it is all melted and mixed, which make into small rolls; take a piece the size of a walnut three times a day on an empty stomach.

Strengthening Plaster. — The best and most effective plaster is very simple, viz.: Take the pitch of pine knots, and hemlock gum, equal quantities of each, melt them together, and add a small quantity of sulphur; it is then fit for use, in whatever way one may please. Spread on paper or cloth.

Leeches. — This species of the aquatic worm is well known, and its uses are also quite well understood, but not so assiduously applied as the benefit derived from them demands. These aquatic worms, so forbidding to some as they perform their amusing gyrations through their native element, perform wonders in the "healing art." They give to physicians a control over disease which they could not obtain in any other way. They afford the least painful, and in many instances the most effectual means for the local abstraction of blood, as they are often applicable to parts where, either from the situation or great tenderness when inflamed, it does not admit of the use of cups; and in cases of infants they are far preferable.

The imported leeches are used generally in New York and Boston. They are larger, and will draw more blood than our leeches; yet those native to our waters are much used, and in every respect will perform the same duties as the imported ones. They can be found in innumerable rivers and streams throughout our country; but in the northern latitudes can be obtained most easily in the spring and first part of the summer. The nurture and preservation of these important insects are generally well understood: they require only fresh water every day; and that taken from some river containing earthy matter is preferable, and more congenial to their natures. When one intends to use them, it is a good method to empty them from the bottle in which they are kept into a large vessel of water blood warm, permitting them to exercise some twenty or thirty minutes; then they will the more readily take hold of the part presented to them. Sometimes it is necessary to make a small puncture with a pin or knife, before they will lay hold; while a little sweet milk or cream applied to the part will frequently induce them to draw blood. Those that are used should not be put with the others, until they have perfectly cleansed themselves from blood, and recovered their accustomed activity.

In cases of local inflammation, as sores, tumors, &c., they draw the blood directly from the parts diseased, and induce a new and healthy action of the fluids circulating there. Inflammation of the eyes, or of the liver, cannot be remedied better in any other way than by applying leeches to the parts neighboring to them. Humors, that have settled in any part of the body, can be effectually withdrawn, while putrid sores can be healed, which, if the inflammation is not arrested, would at length become cancerous. So much confidence have I in leeching, that I would rather banish all the salves and ointments that are now in customary use, than be deprived of the benefit of leeches. Chronic diseases, originating from external inflammations, need not be in existence, were leeches faithfully and perseveringly applied in the beginning of the disease. Dropsy in the knee joints, or in other locations, can be cured by the application of leeches, with constant friction and bathing. In fine, reason will dictate when their application will be salutary and beneficial; but no injury can possibly result in any common case.

General Remarks. — There is no other opportunity so great, to impose upon the credulity of the public, as in the practice of medicine. Hence this profession is filled with men devoted to quackery and chicanery. The public, too, is ripe for their reception, abounding in those who are ready "to take things at first sight," without scruple or investigation, and being desirous of obtaining a

sovereign balm for all the ills "which flesh is heir to," that is so *highly lauded*, and has so many *worthy recommendations*. Therefore these itinerant *mountebanks* are continually deceiving the most honest and worthy part of the community, in different forms, assumed to suit their present designs. As an illustration: I well know the fact, that one of these itinerant quacks passed through, only two years since, the most intelligent neighborhoods in the interior of Connecticut, pretending to cure almost all diseases. Multitudes flocked to him, and purchased his medicines, which were put up in vials, at the *moderate* prices of one dollar to three dollars per vial; and all that I have examined were composed of the extracts of the excellent plants of catnip, thoroughwort, cedar, and bloodroot, mixed with molasses and spirit. This same mountebank, I learn, is now practising, with *great success*, in the state of Maine. But what appears strange is, that the very same community, which has been so egregiously imposed upon, is quite as liable to be insnared by the very next impostor, if he only comes in a different garb, with the air of plausibility.

Many people place too much reliance upon the mere administration of medicine, just as if *that*, and *that alone*, were to effect a speedy and radical cure. Yea, they even rush into dissipations, eat and drink what they well know will cause a sudden derangement of the system, with the choice, as they think, of fleeing to a refuge in this or that medicine as an antidote. It is evident how fallacious such reasoning actually is — how absurd, to weaken the constitution, and debilitate the vital action of the system, and then take unwholesome *drugs* to restore health. Yet thousands are pursuing that very course every day, particularly in our cities, where luxury and dissoluteness have unlimited sway. This fatal error is entertained by many, prostrated by chronic diseases or general low debility, who submit to the treatment of all distinguished physicians without avail, or attempt a cure by the use of different medicines, recommended on good authority. In many such cases of the present day, a total abstinence from all "medicines," (properly so called,) and a resort to simple and appropriate means, will often produce the most desirable results. That constitution, which is continually *dosed off* with medicinal drugs, can never be vigorous and healthy. But this fact is not to be distorted into the idea that no precautions should be used, while in the enjoyment of health, against disease, by taking proper medicines. For the most robust constitutions frequently require medicines that will purify the blood, and give it a more healthy tone. The whole idea is summed up in the words of Thomas Jefferson, used in a letter written to Dr. Wistar, of Philadelphia. "I would," said he, "have the physician learn the limit of his art." It is not improbable that future generations will look upon the administration of medicine, as now pursued, with as much wonder and abhorrence as we now regard the habitual use of spirituous drinks.

The essential principles of medicine are very few; they are likewise plain. All the morbid effects of heat and cold, of eating and drinking, and the exercises of the body and mind, may be taught with as much ease as the multiplication table. The extent of exposures to disease is regarded as a matter of no small consequence by the provident; so also should the extent and nature of their medicines. It has been remarked by many acute writers, that, as the science of medicine became technical, theoretic, and complex, simple remedies were rejected, and combined and complicated medicines supplied their place; and these were so compounded and disguised, to render the practice mysterious, that the patient could never tell which article of the compound relieved him, or what it was that relieved him at all. If the medicine failed in its effects, or was injurious, the whole was ascribed to the disease, not to the remedy. That this is the fact to some extent cannot be, in truth, denied. Yet medicine affords a theme of great study, not only of curious inquiry, but of deep interest, to families and individuals, who, after all that has been said by its professors, ought, to some extent, to be their own physicians. For instance, from the nature of our climate, subject to great and sudden changes; from the abundance of fruit, used in a crude and improper state; and the vast consumption of fresh meats, — frequent and great irregularities will, and do, take place in the digestive organs, gall-bladder, and biliary ducts. It is impossible to retain good health without due attention to the state of the stomach. Consequently, every one must use professional skill and judgment enough to administer such medicines as will be a preventive against such common complaints. On this subject, a learned and successful practitioner, in his secret of curing diseases, has remarked, "that by accurately observing all the mo-

tions, endeavors, and indications of Nature to carry off and cure diseases, and by observing by what critical evacuation she does at last cast off the morbid matter which caused them, and so restores health, we may, by the same method of reasoning, know both the methods and the means we should use to assist nature in producing those salutary effects. If we avoid all hypothetical reasoning, and by thus observing, following, and assisting Nature, agreeably to her indications, our practice will always be more satisfactory and successful."

For the human body is so wisely and wonderfully formed, that whenever any noxious matter is introduced into it that would be injurious or destructive, we may observe it always so irritates, stimulates, and offends Nature, that she ever exerts her power, or the *vis vitæ*, to throw it off. And she acts with great regularity, order, and uniformity, in her endeavors to expel the offending matter from the body, and, by carrying off the disease, restore health and preserve life.

And thus, by observing, investigating, and truly knowing the diseases and their causes, and justly reasoning therefrom, we *shall know* when to assist Nature according to her indications; and in this is contained the chief part of medical knowledge, and the true scientific principles of the medical art. And when one has thus learned of Nature, by observing her laws and indications, he may reasonably hope to render the theory and practice of medicine beneficial to mankind.

Although the author of these imperfect pages should be the last to decry the medical profession, having passed more than thirty years in its practice, and amassed no inconsiderable amount of property, yet he believes that he shall utter the sentiments of many others, when he says, "that too much confidence is placed, by the public generally, in physicians." There has recently been adopted a new idea in confining the different methods of treating different diseases to separate and distinct practitioners; and to this there cannot reasonably be any objection, but for many good reasons it should be encouraged. These different methods are chiefly confined to the beneficial practice of bathing, friction, (particularly to the part affected,) and the administration of simple but effectual remedies. Now comes the important question, whether or not every individual may perform upon himself this simple and beneficial treatment. As an example, the death of the late Hon. John Fairfield, United States senator of Maine, furnishes a conclusive argument against dangerous experiments in the treatment of chronic diseases; for all treatments in medicine can be called only experiments, when their effects cannot be, to a reasonable extent, known. Mr. Fairfield had been afflicted for several years with a chronic inflammation of the lining membrane of the knee joints, ending in dropsical effusions; and not to go into a detailed account of his disease, suffice it to say that he submitted to the treatment of a distinguished physician in the city of Boston, who commenced a cure proportioned to the time that he remained under his immediate care, and if carried out, I hesitate not to say, would have effected a radical cure. Such chronic diseases can generally be remedied by the most simple methods; while its treatment consists, in general terms, of alterative medicines, as mercury, sarsaparilla, iodine, &c., internally, and externally of frictions, with mercury, iodine, and other articles, long-continued pressure on the parts by means of splints or bandages, and most especially by resorting to leeching or cupping, &c. But, instead of persevering in a safe and gradually beneficial treatment, which in a majority of cases can be performed by the invalid himself, many submit to dangerous experiments, which they believe will work a speedy and radical cure, but often, instead, produce severe inflammations and death, as in the lamentable case referred to above.

After bewailing the defects and disasters of medical science, Dr. Rush consoled himself with the animating prospects of *that hope*, which he often proclaimed, "that the day would arrive when medical knowledge should have attained to that apex of perfection, that it would be able to remove all the diseases of man, and leave not for life a single outlet, a single door of retreat but old age; for such is my confidence, said he, in the benevolence of the Deity, that he has placed on earth remedies for all the maladies of man." This may be anticipated only when temperance shall be triumphant in regard to our drinks, food, and diversified habits. It is no solecism to say that to the present generation *health* is *disease*, considering the degrees of luxury and sacrifices of health to the fashion and customs of the day, which are so universally indulged in.

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